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<110> Lorens, James B.
 Bogenberger, Jakob
 Holland, Sacha
 Xu, Weiduan
 Rigel Pharmaceuticals, Inc.

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<130> 021044-004110PC

<140> WO PCT/US03/27523

<141> 2003-09-02

<150> US 10/231,956

<151> 2002-08-30

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Pro Ala Gly Glu Pro Thr Gln Glu Ala Ser Gly Val Ala Ala Lys
50 55 60
Ala Gly Met Asn Arg Val Phe Leu Gln Arg Leu Leu Trp Leu Leu Arg
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Arg Leu Asp Gly Arg Leu Ala Arg Cys Ile Val Arg Lys Asp Pro Arg
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Thr Phe Val Asn Ser Ala Ile Arg Tyr Leu Glu Gly Gln Leu Ala Leu
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Ala Leu Glu Lys Lys Glu Glu Leu Val Ser Glu Arg Thr Glu Ala
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<210> 9
 <211> 885
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(885)
 <223> n = g, a, c or t

```

<400> 9
agaggcgcag cggtcgcagc gntggctcag tgtgctgggt tcttgccggt tgaatcgagt      60
aggcatccag agtggtgcc tccaggtcat ggggtggcatg ggggtagccc gcagcgtcgc      120
tgcaccgatc ttggcgccc cgcagatgac tggggagctg gccggcatgg gctgggtacgg      180
aatggtcatg actctccctt ggggagactg ggagagcgtc tccagcatga ccaggcaaat      240
  
```

ctgcttgaca	caactcgggtga	cagactgcgg	cacgccagcg	atggtgatgg	cccgtcgggt	300
ggagtttggg	cagcatatcc	cccgaactg	gacctgcgcc	cccgtaactct	cgcggtatctc	360
tttgatctta	cacccgcctt	tcccaatcag	tgagaccgca	ctgggtgggc	ggcaacaaca	420
gctcaggggtg	accggggggcc	tgctggccgc	ggtactgttt	ggtcatggag	ctgttgatat	480
cttcctccag	cttgctgatg	atcatagcga	aagccttaaa	gatggcattg	gtggggccgg	540
tcagagtgat	gattctctcc	ggacaattcc	cctccgagat	gtttgatccg	ggcgccactc	600
tctcgcgga	tctcttaac	gaatcccctt	tcttcccaat	gatgcttcta	cttcctttcc	660
gtgcatagga	agccgaatgg	tgagagtcac	attttagtcc	acttttcagt	cacaccgggg	720
atccatggnc	gancgggccc	ggacgggct	acgggggaat	tgggctcgta	acagttggnc	780
cagntcntta	ggcgggtgaga	gggaggggaag	ggaggccaac	aatggcgggg	agaagaaggc	840
acgacaacag	agtgcggagg	acaaccaaca	caacaaggta	aaaaa		885

<210> 10
 <211> 715
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(715)
 <223> n = g, a, c or t

<400> 10						
cttgaatcga	gtaggcatcc	agagngtggg	ccctccaggt	catgggtggc	atgggggtag	60
cccgcagcgt	cgctgcaccg	atcttgcccg	cccgcgtaga	tgactgggga	gctggccggc	120
atgggctggg	acggaatggg	catgactctc	ccttgccggag	actgggagag	cgtctccagc	180
atgaccaggc	aaatctgctt	gacacactcg	gtgacagact	gcgccacgcc	agcgatgggtg	240
atggcccgtc	cggngagagt	tagggcacgc	aatatcccca	cgaacaaact	ggaactgacg	300
gccccgaaa	ctctacgcna	gatactcntt	aagaaacttn	acaccgggac	ttatacccaa	360
atcagagaag	ccgcaacatg	ggtggcaccg	gaaaacaaca	gaactccagg	ggatgaaccg	420
gaggggacat	agaaagggaa	cagacgggga	taccataggt	ctggcggtcc	caatggggag	480
gcctgcntat	gaactaaatc	cttacccttc	ccaancacat	aggnatccgg	aatggaaatc	540
aaataggcgg	aaaaangtcc	ctttaaaaca	gaaaatnggg	caacttngna	aggggggggac	600
cacgagacan	aacaaaccga	agacatacgc	aaccagggaa	caaaanttac	cccagacgcg	660
agagaaggnt	ggacancacg	gcacagacca	cagtacccat	cnnagacgga	caccg	715

<210> 11
 <211> 643
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(643)
 <223> n = g, a, c or t

<400> 11						
cttgaatcga	gtaggcatcc	agaggtgggc	cctccaggtc	atgggtggca	tgggggtagc	60
ccgcagcgtc	gctgcaccga	tcttgccgc	ccgcgcagat	gactggggag	ctggccggca	120
tgggctggta	cggaatgggc	atgactctcc	ccttgccgga	ctgggagagc	gtctccagca	180
tgaccaggca	aatctgcttg	acacactcgg	tgacagactg	cggcacgcca	gcgatgggtga	240
tggcccgtc	ggtggagttg	ggcagcatat	ccccgcaca	cctggacctg	cgcccccgta	300
ctctcgcgga	tctcttatga	tcttaacaac	acacgacacn	tttttcncan	caaaatccag	360
ggagccgaca	acatggagtg	agcccggaca	ccacacagac	ctcagggtga	ccgggggcct	420
gcatggccga	cggatacnga	anggtcatgg	acgctgtgat	atcttctctc	agctagtoga	480
tgatcatagc	gaaaagcccc	tttcacaacg	aaatgaggcc	attngagatn	ggggcgggcc	540
gggatccagg	aaggttcgca	ctaggaactn	acgtaccatt	atccccaggg	agaaaacncc	600
agaacaatat	tacaccacc	caccgattac	cccaagaaag	aaa		643

<210> 12
 <211> 544
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(544)
 <223> n = g, a, c or t

```

<400> 12
cttgaatcga gtaggcatcc agaggtggtc cctccagggtc atgggtggca tgggggtagc      60
ccgcagcgtc gctgcgccga tcttgccgcg ccgcgcagat gactggggag ctggccggca      120
tgggctggta cggaatggtc atgactctcc cttgcgagaga ctgggagagc gtctccagca      180
tgaccaggca aatctgcttg acacactcgg tgacagactg cggcacgccca gcgatggtga      240
tggcccgcctc ggtggagttg ggcagcatat cccacagagc anctggacct gcgcccccca      300
tactctcgac ggatctcttt gatcttacac ccgacctttc ccaatcaggg aagccgcaca      360
tgggatggca cggcaccacc agacctcagg gatgaccagg gaggcctgca tggaccgcag      420
gatactgata ggatcatgga gnctgataga tatcttccct ccagactatg ntcgatgatc      480
aataaggcgg aaaaggccat aaanagnaat gggcaattag ggatcgggag gaccaggatc      540
aaga
  
```

<210> 13
 <211> 505
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(505)
 <223> n = g, a, c or t

```

<400> 13
cttgaatcga gtaggcatcc agaggtggtc cctccagggtc agtaatggcc ggggttttttg      60
ggtngggggcc caaatttttcg ggggaaggag taaaggcccc caccgggacc aattggcagg      120
gtccgctgcn accgatactt ggcctgccgc gcagatgact ggggagctgg tcggcatggg      180
ctggtacgga atgggtcatga ctctcccttg cggagactgg gagagcgtct ccagcatgac      240
caggcaaate tgcttgacac actcggtgac agactgcggc acgccagcga tggatgatggc      300
ccgctcgggtg gagttgggca gcataatcccc cgccacctgg acctgcgccc ccgtactctc      360
gcggatctct ttgatcttac acccgctttt cccaatcagg gagccgcact ggggtggccgg      420
caccaccagc ctcaggggtga ccggggggcct gctggccgcg gtactgttgg tcatggggct      480
gttgatatct tctccagct tgctg
  
```

<210> 14
 <211> 431
 <212> DNA
 <213> Homo sapiens

```

<400> 14
cttgaatcga gtaggcatcc agaggtggtc cctccagggtc atgggtggca tgggggtagc      60
ccgcagcgtc gctgcaccga tcttgccgcg ccgcgcagat actggggagc tggccggcat      120
gggctgggtac ggaatgggtca tgactctccc ttgctggagac tgggagagcg tctccagcat      180
gaccaggcaa atctgcttga caccctcggg gacagactgc ggcacgccag cgatggtgat      240
ggcccgcctc gtggagttgg gcagcatatc ccccgccacc tggacctgcg cccccgtact      300
ctcgcggtac tctttgatct tacaccgcgc tttcccaatc agggagccgc actgggtggc      360
cggcaccacc agcctcaggg tgaccggggg cctgctggcc gcggtactgt tgggtcatgga      420
gctgttgata t
  
```

<210> 15
 <211> 614
 <212> DNA
 <213> Homo sapiens

<400> 15
 agcttggtac gagctcggat cactagtaac ggccgccagt gtgctggaat tgcgcccttcg 60
 aggagagtgg cgcgcggatc aacatctcgg aggggaattg tccggagaga atcatcactc 120
 tgaccggccc caccaatgcc atctttaagg ctttcgctat gatcatcgac aagctggagg 180
 aagatatcaa cagctccatg accaacagta ccgcggccag caggcccccg gtcacccctga 240
 ggctggtggt gccggccacc cagtgcggct ccctgattgg gaaaggcggg tgtaagatca 300
 aagagatccg cgagagtacg ggggcgcagg tccagggtggc gggggatatg ctgcccaact 360
 ccaccgagcg ggccatcacc atcgtctggcg tgccgcagtc tgtcaccgag ggtgtcaagc 420
 agatttgctt ggtcatgctg gagacgctct ccagctctcc gcaagggaga gtcattgacca 480
 ttccgtacca gcccatgccg gccagctccc cagtatctgc gcgggcggcc aagatcgggtg 540
 cagcgacgct gcgggctacc cccatgccac ccatgacctg gagggaccac ctctggatgc 600
 ctactcgatt caag 614

<210> 16
 <211> 619
 <212> DNA
 <213> Homo sapiens

<400> 16
 cttgaatcga gtaggcatcc agaggtgggtc cctccagggtc atgggtggca tgggggtagc 60
 ccgcagcgtc gctgcaccga tcttgccgcg ccgcgcagat actggggagc tggccggcat 120
 gggctggtac ggaatggtca tgactctccc ttgcggagac tgggagagcg tctccagcat 180
 gaccaggcaa atctgcttga cacactcggg gacagactgc ggcacgccag cgatggtgat 240
 ggcccgtcgt gtggagttgg gcagcatatc ccccgccacc tggacctgcg cccccgtact 300
 ctgcggatc tctttgatct tacacccgcc tttcccaatc agggagccgc actgggtggc 360
 cggcaccacc agcctcaggg tgaccggggg cctgctggcc gcggtactgt tggatcatga 420
 gctgttgata tcttcctcca gcttgctgat gatcatagcg aaagccttaa agatggcatt 480
 ggtggggccg gtcagagtga tgattctctc cggacaattc ccctccgaga tgttgatccg 540
 cgcgccatct cctcgcggat cctcttaaac cgatccccct tcttcccaat gatgcttcta 600
 cttctttccg tgcatagaa 619

<210> 17
 <211> 382
 <212> DNA
 <213> Homo sapiens

<400> 17
 cttgaatcga gtaggcatcc agaggtgggtc cctccagggtc atgggtggca tgggggtagc 60
 ccgcagcgtc gctgcaccga tcttgccgcg ccgcgcagat actggggagc tggccggcat 120
 gggctggtac ggaatggtca tgactctccc ttgcggagac tgggagagcg tctccagcat 180
 gaccaggcaa atctgcttga cacactcggg gacagactgc ggcacgccag cgatggtgat 240
 ggcccgtcgt gtggagttgg gcagcatatc ccccgccacc tggacctgcg cccccgtact 300
 ctgcggatc tctttgatct tacacccgcc tttcccaatc agggagccgc actgggtggc 360
 cggcaccacc agcctcaggg tg 382

<210> 18
 <211> 566
 <212> DNA
 <213> Homo sapiens

<400> 18
 cttgaatcga gtaggcatcc agaggtgggtc cctccagggtc atgggtggca tgggggtagc 60
 ccgcagcgtc gctgcaccga tcttgccgcg ccgcgcagat actggggagc tggccggcat 120
 gggctggtac ggaatggtca tgactctccc ttgcggagac tgggagagcg tctccagcat 180
 gaccaggcaa atctgcttga cacactcggg gacagactgc ggcacgccag cgatggtgat 240
 ggcccgtcgt gtggagttgg gcagcatatc ccccgccacc tggacctgcg cccccgtact 300

ctcgcggatc	tctttgatct	tacacccgcc	tttcccaatc	agggagccgc	actgggtggc	360
cggcaccacc	agcctcaggg	tgaccggggg	cctgctggcc	gcggtactgt	tggtcatgga	420
gctggtgata	tcttcctcca	gcttgctgat	gatcatagcg	aaagccttaa	agatggcatt	480
ggtggggccg	gtcagagtga	tgattctctc	cggacaattc	ccctccgaga	tgttgatccg	540
cgcgccactc	tcctcgcgga	tcctct				566

<210> 19
 <211> 643
 <212> DNA
 <213> Homo sapiens

<400> 19						
cttgaatcga	gtaggcatcc	agaggtggtc	cctccaggtc	atgggtggca	tgggggtagc	60
ccgcagcgtc	gctgcaccga	tcttgccgcg	ccgcgcagat	actggggagc	tggccggcat	120
gggctgggtac	ggaatgggtca	tgactctccc	ttgcggagac	tgggagagcg	tctccagcat	180
gaccaggcaa	atctgcttga	cacactcggt	gacagactgc	ggcacgccag	cgatgggtgat	240
ggcccgcctcg	gtggagttgg	gcagcatatc	ccccgccacc	tggacctgcg	cccccgact	300
ctcgcggatc	tctttgatct	tacacccgcc	tttcccaatc	agggagccgc	actgggtggc	360
cggcaccacc	agcctcaggg	tgaccggggg	cctgctggcc	gcggtactgt	tggtcatgga	420
gctggtgata	tcttcctcca	gcttgctgat	gatcatagcg	aaagccttaa	agatggcatt	480
ggtggggccg	gtcagagtga	tgattctctc	cggacaattc	ccctccgaga	tgttgatccg	540
cgcgccactc	tcctcgcgga	tcctcttaac	cgactccctt	ttcttcccaa	atgatgcttc	600
ctacttcctt	tttccgtgca	taagaaagcc	gaaatggtga	gag		643

<210> 20
 <211> 370
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(370)
 <223> n = g, a, c or t

<400> 20						
nngctgcgga	tcaacatctc	ggaggggaat	tgtccggaga	gaatcatcac	atcatgaccg	60
gccccaccaa	tgccatcttt	aagagctttc	gctatgatca	tcgacaagac	tggaggaaga	120
tatcaacagc	tccatgacca	acagtaccgc	ggcacagcag	gccccacggg	tcaccctgag	180
gctggatggg	gccggccacc	cagatgcggc	tccttgatan	gggaaaggcg	ggtgtaagat	240
caaagagatc	annagagagt	acggggngcg	caggtccaag	gaatggcagg	agggatatgc	300
atgccccaaa	acaaccgaga	cggggccaaan	accatagctg	gacagtgccg	aaggactgtc	360
accngaagat						370

<210> 21
 <211> 319
 <212> DNA
 <213> Homo sapiens

<400> 21						
cttgaatcga	gtaggcatcc	agaggtggtc	cctccaggtc	atgggtggca	tgggggtagc	60
ccgcagcgtc	gctgcaccga	tcttgccgcg	ccgcgcagat	gactggggag	ctggccggca	120
tgggctggta	cggaatggtc	atgactctcc	cttgccggag	aactggggaa	gagcgtctcc	180
agcatgacca	ggcaaactctg	cttgacacac	tcggtgacag	actgcggcac	gccagcaatg	240
gtgatggccc	gctcgggtgga	gttgggcagc	atatcccccg	ccacctggac	ctgcgcccc	300
gtactctcgc	ggatctctt					319

<210> 22
 <211> 264
 <212> DNA
 <213> Homo sapiens

```

<220>
<221> modified_base
<222> (1)...(264)
<223> n = g, a, c or t

<400> 22
ggcgccagtg tgctgcnatt cgcntatctc tcggcatgga cgagctggta caaaaaggag      60
gagggccgcg aagtcggtgg cagcgggtggc tccagtgttg gctggggggg ttctgcggct      120
tgaatcggaa ggtttaaggg ggcatccaga ggtggtccct ccaggatcatg ggtggcatgg      180
gggtagcccg cagcgtcgct gcaccgatct tggcgccgcg ccagatgact gggggaagct      240
ggccggcatg ggcttggtac ggaa                                     264

<210> 23
<211> 626
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(626)
<223> n = g, a, c or t

<400> 23
cgctgcggat caacatctcg gaggggaatt gtccggagag aatcatcact ctgaccggcc      60
ccaccaatgc catctttaag gctttcgcta tgatcatcga caagctggag gaagatatca      120
acagctccat gaccaacagt accgcggcca gcaggccccc ggtcaccctg aggctggtgg      180
tgccggccac ccagtgcggc tccctgattg ggaaaggcgg gtgtaagatc aaagagatcc      240
gcgagagtac gggggcgtag gtccaggtgg cgggggatat gctgcccaac tccaccgagc      300
gggccatcac catcgctggc gtgccgcagt ctgtcaccga gtgtgtcaag cagatttgcc      360
tggtcatgct ggagacgctc tcccagtcct cgcaaggagg agtcatgacc attccgtacc      420
agcccagtcg ggccagctcc ccagtcctct gcgcggggcg ccaaagatcg gngcagcgac      480
gctgcggggt accccacaat agacacacca tgacctggag ggaacaacta ctggatgcta      540
catccgannt caagccggaa aanccaaca aactgggaac cacacgatag acacacgctg      600
ccttggcagg catcaccacc tatgaa                                     626

<210> 24
<211> 849
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(849)
<223> n = g, a, c or t

<400> 24
cttgaatcga gtaggcatcc agaggtgggc cctccaggct atgggtggca tgggggtagc      60
ccgcagcgtc gctgcaccga tcttgccgcg ccgcgcagat gactggggag ctggccggca      120
tgggctggta cggaatggtc atgactctcc cttgcggaga ctgggagagc gtctccagca      180
tgaccaggca aatctgcttg acacactcgg tgacagactg cggcacgcca gcgatggtga      240
tggcccgtc ggtggagtgg ggcagcatat ccccgcgccac ctggacctgc gccccgtac      300
tctcgcggat ctctttgatc ttacaccgcg ctttcccaat caggagagcg cactgggtgg      360
ccggcaccac cagcctcagg gtgaccgggg gcctgctggc cgcggtactg ttggtcatgg      420
agctgttgat atcttcctcc agacttgctg atgatcatag cgaaagcctt aaaagatggc      480
attggtgggg gccggtcaga gtgatgatcc tctccggaca attccccttc gaagatgtga      540
tccgcgcgca catctcctcg cggatctctt aaaccgagtc ccntttcatc caagaatgna      600
ctcctactcc ctataccggc cataanaang ccgaaatggg tgaagaangt cacactttaa      660
ggtccacact tatcagcaca ncccgggac cacaggggca aacggccggg agcaggaagg      720
ccgagaggc ccggaaaaac ccanacaaca gggttaaata aaaataaagg gccgcaaaaa      780
aatcgaagga atcgagaaaa acangccgcc aaatcggcac actaatgaac gataacaact      840
aaagacaga                                     849

```

<210> 25
 <211> 360
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(360)
 <223> n = g, a, c or t

<400> 25							
cgctgcgggc	tcccggcccg	gctcgccatg	gatggccggt	gtgactgaaa	gtggactaaa		60
tgtgantctc	accattcggc	ttcttatgca	cggaaaggaa	gtaggaagca	tcattgggaa		120
gaaaggggag	tcngttaaga	ngatccgtga	ggagagtggc	gcgcggatca	actatctcgt		180
gaggggaattg	tcncggagag	aancatcact	ctgaccggcc	ccaccaatga	ncanctttaa		240
ggcttgcgca	tatgatcatc	gacaagcngg	aggaagatat	caacaganta	ccatgaccaa		300
cagtaccgcg	ggacagacan	gccccggnc	agacangagg	ctggagg nag	ccggaccagc		360

<210> 26
 <211> 744
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(744)
 <223> n = g, a, c or t

<400> 26							
cttgaatcga	gtaggcattc	agaggtgggc	cctccagggtc	atgggtggca	tgggggtagc		60
ccgcagcgtc	gctgcaccga	tcttgccgcg	ccgcgcagat	gactggggag	ctggccggca		120
tgggtctgta	cggaaatggc	atgactctcc	cttgccggaga	ctgggagagc	gtctccagca		180
tgaccaggca	aatctgcttg	acacactcgg	tgacagactg	cggcacgcca	gcgatgggtga		240
tggcccgcgc	gggtggagttg	ggcagcatat	ccccgcact	ggacctgcgc	ccccgtactc		300
tcgcggatct	ctttgatctt	acaccgcct	ttcccaatca	gggagccgca	ctgggtgtgc		360
cggcaccacc	agcctcaggg	tgaccggggg	cctgctggcc	gcggtactgt	tggatcatgga		420
gctgttgata	tcttctctca	gcttgctgat	gatcatagcg	aaagccttaa	agatggcatt		480
ggtggggccg	gtcagagtga	tgattctctc	cggacaattc	ccctccgaga	tgttgatccg		540
cgcgccactc	tcctcgcgga	tcctcttaaa	cgatcccctt	tcttcccaat	gatgcttcca		600
tacttccttt	ccgtgcataa	gaagccgaaa	tggtgagagt	caccatttag	gtccactttc		660
agtcaacacc	ggatccatgg	gcgagcgggg	gcaggacgta	ccggggngag	attgggctcg		720
aacagtgggc	aaagacagga	caga					744

<210> 27
 <211> 554
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(554)
 <223> n = g, a, c or t

<400> 27							
cgctgcgggc	tcccgcgcgc	tcccgcctgc	tcccgcggcc	ctcgctcgcc	tcgcgcgggc		60
agttttgggc	ctacacctcc	cctccccccg	ccagccgcca	aagacttgac	cacgtaacga		120
gcccactcc	cccgaacgcc	gcccgcgcgt	cgccatggat	gccggtgtga	ctgaaagtgg		180
actaaatgtg	actctcacca	ttcggcttct	tatgcacgga	aaggaagtag	gaagcatcat		240
tgggaagaaa	ggggagtcgg	ttaagaggat	ccgcgaggag	agtggcgcg	ggatcaacat		300
ctcggagggg	aatttgctcg	gagagaatca	tcactctgac	cggccccacc	aatgccatct		360
ttaaggcttt	cgctatgata	atcgacaagc	tggaggaaga	tatcaacagc	tccatgacca		420

acagtaccgc	ggccagcagg	cccccggtca	ccctgaggct	ggtggtngcc	ggccacccag	480
tgcggctccc	tgattgggaa	aggcgggtgt	aagatcaaag	agatccgcga	gagtacgggg	540
gcgcaggtcc	aggt					554

<210> 28
 <211> 553
 <212> DNA
 <213> Homo sapiens

<400> 28						
cgtcgccggc	tcccgcccg	tcccgctcgc	tcccgccggc	ctcgctcgc	tcgcgccggc	60
agttttgggc	ctacacctcc	cctccccccg	ccagccgcc	aagacttgac	cacgtaacga	120
gcccactcc	cccgaacgcc	gcccgcgct	cgccatggat	gccggtgtga	ctgaaagtgg	180
actaaatgtg	actctcacca	ttcggtttct	tatgcacgga	aaggaagtag	gaagcatcat	240
tgggaagaaa	ggggagtcgg	ttaagaggat	ccgcgaggag	agtggcgcg	ggatcaacat	300
ctcggagggg	aattgtccgg	agagaatcat	cactctgacc	ggccccacca	atgccatctt	360
taaggctttc	gctatgatca	tcgacaagct	ggaggaagat	atcaacagct	ccatgaccaa	420
cagtaccgcg	gccagcaggc	ccccggtcac	cctgaggctg	gtggtgccgg	ccaccagtg	480
cggctccctg	attgggaaag	gcgggtgtaa	gatcaaagag	atccgcgaga	gtacgggggg	540
gcgaggtcca	ggg					553

<210> 29
 <211> 801
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(801)
 <223> n = g, a, c or t

<400> 29						
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tgtgactctc	accattcggc	ttcttatgca	cggaaaggaa	gtaggaagca	tcattgggaa	120
gaaaggggag	tcgggttaaga	ggatccgcga	ggagagtggc	gcgcggatca	acatctcgga	180
ggggaattgt	ccggagagaa	tcatcactct	gaccggcccc	accaatgcc	tctttaaggc	240
tttcgctatg	atcatcgaca	agctggagga	agatatcaac	agctccatga	ccaacagtac	300
cgcgccagc	aggcccccg	tcaccctgag	gctggtggtg	ccggccaccc	agtgcggctc	360
cctgattggg	aaaggcgggt	gtaagatcaa	agagatccgc	gagagtacgg	gggcgcagg	420
ccaggtggcg	ggggatatgc	tgccaactcc	accgagcggg	ccatcaccat	cgctggcggtg	480
ccgcagctcg	ttcacggaag	tgtgtcacag	cnagatttgc	ctggtcatgc	ttggaaaacg	540
gcttctcccc	aantaccttc	cngcaaagg	gagaagtcca	ttgaacccan	ttccccgcgn	600
aaccaacagc	ccccaaatgg	gcccggggcc	acaggctccc	ccaaggaca	natcnggagg	660
ccggggggac	gggccaacg	aatccgggga	ggcaagacga	anacatgcag	ggcataaccc	720
cccanggcac	acccatgaac	ctgggaagg	gaccacctct	gggaatggcn	aatcgagtca	780
agccagaaaa	accagcacac	g				801

<210> 30
 <211> 827
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(827)
 <223> n = g, a, c or t

<400> 30						
cttgaatcga	gtaggcatcc	agaggtggtc	cctccaggtc	atgggtggca	tgggggtagc	60
ccgcagcgtc	gctgcaccga	tcttggcgcc	gcgcagatga	ctggggagct	ggccggcatg	120
ggctggtacg	gaatggtcat	gactctccct	tcgggagact	gggagagcgt	ctccagcatg	180

accaggcaaa	tctgcttgac	acactcgggtg	acagactgcg	gcacgccagc	gatgggtgatg	240
ngcccgcctcg	gtggagttgg	gcagcatatc	ccccggcacc	tgganctgcg	cccccggtact	300
ctcgcggatc	tctttgatct	tacacccgcc	tttcccaatc	agtggagccg	cactgggtgt	360
gcctggcacc	accagcctca	gggtgaccgg	ggtgcctgct	ggccgcggta	ctgtttggtc	420
atggagctgt	tgatatcttc	ctccagcttg	tcgatgatca	tagcgaaagc	cttaaagatg	480
gcattggtgg	ggccggtcag	agtgatgatt	ctctccggac	aattccctcc	gagatgttga	540
tccgcgcgcc	aatctcctcg	cggatcctct	taacgaatcc	cctttcttcc	aaangatgat	600
tcctanttcc	tttaccgtgc	atatagaaag	cccgaatagg	ttgacgagtc	cacatttagt	660
ccacactttc	agtcacaccc	gggaatccaa	tgggcgagcg	gagggacgga	gacgggggga	720
agatgggctgc	cgaacgttgg	gccaagaata	gagcaagaga	gnagaaggaa	aaangacaaa	780
gagcacaaac	agaaaaaaga	caaaaaggna	gcaagcacac	naaaaaa		827

<210> 31
 <211> 393
 <212> DNA
 <213> Homo sapiens

<400> 31						
cgctgcggcc	tcccgcgcgc	cgctcgccat	ggatgcgggt	gtgactgaaa	gtggactaaa	60
tgtgactctc	accattcggc	ttcttatgca	cggaaaggaa	gtaggaagca	tcattgggaa	120
gaaaggggag	tcggttaaga	ggatccgcga	ggagagtggc	gcgcggatca	acatctcgga	180
ggggaattgt	cggagagaa	tcactactct	gaccggcccc	accaatgcc	tctttaaggc	240
tttcgctatg	atcatcgaca	agctggagga	agatatcaac	agctccatga	ccaacagtac	300
cgcgccagc	aggcccccg	tcaccctgag	gctggtggtg	cgggacaccc	agtgcggctc	360
cctgattggg	aaaggcggga	tgtaagatca	aag			393

<210> 32
 <211> 1634
 <212> DNA
 <213> Homo sapiens

<400> 32						
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gtcctcgctc	gcctcgcgcc	ggtagttttg	ggcctacacc	tcccctcccc	cgcgcagccg	120
ccaaagactt	gaccacgtaa	cgagcccaac	tccccgaac	gccgcccggc	gctcgccatg	180
gatgccgggtg	tgactgaaag	tggactaaat	gtgactctca	ccattcggct	tcttatgcac	240
ggaaaggaag	taggaagcat	cattgggaag	aaaggggag	cggttaagag	gatccgcgag	300
gagagtggcg	cgcgatcaa	catctcggag	gggaattgtc	cggagagaa	catcactctg	360
accggcccca	ccaatgccat	ctttaaggct	ttcgctatga	tcacgcgaca	gctggaggaa	420
gatatcaaca	gctccatgac	caacagttacc	gcggccagca	ggcccccggt	caccctgagg	480
ctgggtggtg	cggccaccca	gtgcggctcc	ctgattggga	aaggcgggtg	taagatcaaa	540
gagatccgcg	agagtacggg	ggcgaggtc	caggtggcgg	gggatatgct	gcccactcc	600
accgagcggg	ccatcaccat	cgctggcgtg	ccgcagtcctg	tcaccgagtg	tgtcaagcag	660
atttgccctg	tcattgctgga	gacgctctcc	cagtcctccg	aaggagagtg	catgaccatt	720
ccgtaccagc	ccatgcgggc	cagctcccca	gtcatctgcg	cgggcggcca	agatcgggtg	780
agcgacgctg	tggtctaccc	ccatgccacc	catgacctgg	agggaccacc	tctagatgcc	840
tactcgattc	aaggacaaca	caccatttct	ccgctcgatc	tggccaagct	gaaccagggtg	900
gcaagacaac	agtctcactt	tgccatgatg	cacggcggga	ccggattcgc	cgaattgac	960
tccagctctc	cagaggtgaa	aggctattgg	gcaagtttgg	atgcatctac	tcaaaccacc	1020
catgaactca	ccattccaaa	taacttaatt	ggctgcataa	tcgggcgcca	aggcgccaac	1080
attaatgaga	tccgccagat	gtccggggcc	cagatcaaaa	ttgccaaccc	agtgggaaggc	1140
tcctctggta	ggcagggttac	tatcactggc	tctgctgcca	gtattagtct	ggcccagtat	1200
ctaataaatg	ccaggctttc	ctctgagaag	ggcatggggt	gcagctagaa	cagtgtaggt	1260
tccctcaata	acccttttct	gctgttctcc	catgatccaa	ctgtgttaatt	tctgggtcagt	1320
gattccagggt	tttaaataat	ttgtaagtgt	tcagtttcta	cacaacttta	tcacccgcta	1380
agaattttaa	aatcacattc	tctgttcagc	tgtaaatgct	gggatccata	tttagtttta	1440
taagcttttc	cctgttttta	gttttgtttt	gggttttttg	gctcatgaat	tttatttctg	1500
ttgtcgata	agaaatgtaa	gagtggaaatg	ttataaatt	tcagtttagt	tctgtaattgt	1560
caagaattta	agaattaaaa	aacggattgg	ttaaaaaatg	cttcatattt	gaaaaagctg	1620
ggaattgctg	tctt					1634

<210> 33
 <211> 356
 <212> PRT
 <213> Homo sapiens

<400> 33
 Met Asp Ala Gly Val Thr Glu Ser Gly Leu Asn Val Thr Leu Thr Ile
 1 5 10 15
 Arg Leu Leu Met His Gly Lys Glu Val Gly Ser Ile Ile Gly Lys Lys
 20 25 30
 Gly Glu Ser Val Lys Arg Ile Arg Glu Glu Ser Gly Ala Arg Ile Asn
 35 40 45
 Ile Ser Glu Gly Asn Cys Pro Glu Arg Ile Ile Thr Leu Thr Gly Pro
 50 55 60
 Thr Asn Ala Ile Phe Lys Ala Phe Ala Met Ile Ile Asp Lys Leu Glu
 65 70 75 80
 Glu Asp Ile Asn Ser Ser Met Thr Asn Ser Thr Ala Ala Ser Arg Pro
 85 90 95
 Pro Val Thr Leu Arg Leu Val Val Pro Ala Thr Gln Cys Gly Ser Leu
 100 105 110
 Ile Gly Lys Gly Gly Cys Lys Ile Lys Glu Ile Arg Glu Ser Thr Gly
 115 120 125
 Ala Gln Val Gln Val Ala Gly Asp Met Leu Pro Asn Ser Thr Glu Arg
 130 135 140
 Ala Ile Thr Ile Ala Gly Val Pro Gln Ser Val Thr Glu Cys Val Lys
 145 150 155 160
 Gln Ile Cys Leu Val Met Leu Glu Thr Leu Ser Gln Ser Pro Gln Gly
 165 170 175
 Arg Val Met Thr Ile Pro Tyr Gln Pro Met Pro Ala Ser Ser Pro Val
 180 185 190
 Ile Cys Ala Gly Gly Gln Asp Arg Cys Ser Asp Ala Val Gly Tyr Pro
 195 200 205
 His Ala Thr His Asp Leu Glu Gly Pro Pro Leu Asp Ala Tyr Ser Ile
 210 215 220
 Gln Gly Gln His Thr Ile Ser Pro Leu Asp Leu Ala Lys Leu Asn Gln
 225 230 235 240
 Val Ala Arg Gln Gln Ser His Phe Ala Met Met His Gly Gly Thr Gly
 245 250 255
 Phe Ala Gly Ile Asp Ser Ser Ser Pro Glu Val Lys Gly Tyr Trp Ala
 260 265 270
 Ser Leu Asp Ala Ser Thr Gln Thr Thr His Glu Leu Thr Ile Pro Asn
 275 280 285
 Asn Leu Ile Gly Cys Ile Ile Gly Arg Gln Gly Ala Asn Ile Asn Glu
 290 295 300
 Ile Arg Gln Met Ser Gly Ala Gln Ile Lys Ile Ala Asn Pro Val Glu
 305 310 315 320
 Gly Ser Ser Gly Arg Gln Val Thr Ile Thr Gly Ser Ala Ala Ser Ile
 325 330 335
 Ser Leu Ala Gln Tyr Leu Ile Asn Ala Arg Leu Ser Ser Glu Lys Gly
 340 345 350
 Met Gly Cys Ser
 355

<210> 34
 <211> 482
 <212> DNA
 <213> Homo sapiens

<400> 34
 ctgcgccggt gaagacgaag tgcgctcaag cgctccagtg cccaacgcca gcgcaccccc 60
 ggcccccgac acccccagtc ccacgccacg ccgccaccac ggcaccactt acaacaacgg 120

ttgctcaagc	agcggcacct	tgtccccgga	accgcagtag	ccgcctgctg	ccgcgccttg	180
gtcctcgatg	gaggccagcg	ccaggccccc	gttggcggtg	gctccgccc	tcgagcccct	240
tggagtctcg	aggaggatcg	gccaccatga	tggaagcacc	ggggtttctt	agcgcctgga	300
agctggctgg	gagcgcttgg	gctccttccc	aggacccgac	gttcctagga	ctgagttgag	360
taacagcacc	tggagactgg	aacttttgag	ggctccttag	agttgtgagt	tcacagcact	420
aagttccttg	gctcttgaa	gctggagtg	ttaaattccc	caggctgggc	gctaggcttc	480
tc						482

<210> 35
 <211> 558
 <212> DNA
 <213> Homo sapiens

<400> 35						
ctcgcgccgg	aagacgaagg	cgctcaagcg	ctccaggccc	aacgccagcg	cacccccggc	60
ccccgacacc	cccagtccca	gcgccacgcc	ggccaccacg	gccaccactg	tcagcagcac	120
aagcagggtt	gctcgaaggc	agcggcgcac	ctgggtcccg	gaaccgcagt	agccgcctgc	180
tgccgcgcct	tggctctcga	tggaggccag	cgccaggccc	ccgttggcgg	tgggctccgc	240
cgctgcgagc	cccttgaggt	ctcgaggagg	atcggccacc	atgatgggaa	gcaccggggg	300
ttcttagcgc	ctggaagctg	gctgggagcg	cttgggctcc	ttcccaggac	ccgacgttcc	360
taggactgag	ttgagtaaca	gcacctggag	actggaactt	tggagggttc	cttagagttg	420
tgagttcaca	gcactgaagt	tccttggttc	ttggaagctg	gagtgtttaa	attccccagg	480
ctgggcgctg	aggcttctct	gctctgcccc	gtgtgccaga	tgtccgaaag	ctgggagttc	540
ggagcgcccc	ggtttccct					558

<210> 36
 <211> 595
 <212> DNA
 <213> Homo sapiens

<400> 36						
ctcctagggc	caaggaaccc	gggcgctccg	aactcccagc	tttcggacat	ctggcacacg	60
gggcagagca	gagaagcctc	agcgcccagc	ctggggaatt	taaacactcc	agcttccaag	120
agccaaggaa	cttcagtgtc	gtgaactcac	aactctaagg	agccctccaa	agttccagtc	180
tccagggtgt	gttactcaac	tcagtcctag	gaacgtcggg	tcctgggaag	gagcccaagc	240
gctcccagcc	agcttccagg	cgctaagaaa	ccccggtgct	tcccatcatg	gtggccgcatc	300
ctcctcgaga	ctccaagggg	ctcgcagcgg	cggagcccac	cgccaacggg	ggcctggcgc	360
tggcctccat	cgaggaccaaa	ggcgcggcag	caggcggtcta	ctgcggttcc	cgggaccagg	420
tgcgcgcgtg	ccttcgagcc	aacctgcttg	tgctgctgac	agtgggtggc	gtggtggccg	480
gcgtggcgct	gggactgggg	gtgtcggggg	ccgggggtgc	gctggcggtg	ggcctggagc	540
gcttgagcgc	cttcgtcttc	ccgggcgagc	cgaaccacag	cacactggag	ccacc	595

<210> 37
 <211> 724
 <212> DNA
 <213> Homo sapiens

<400> 37						
ctataggggc	aatgggccct	ctagatgcat	gctcgagcgg	ccgccagtgt	gatggatatc	60
tgcagaattc	gcccttctct	cggcatggac	gagctgtaca	aggaggaggc	cgccaaggcc	120
ggtggcagcg	gtggctccag	tgtgctgggt	tccggctcgc	ccgggaagac	gaaggcgctc	180
aagcgctcca	ggcccaacgc	cagcgcaccc	ccggtccccg	acacccccag	tcccagcgcc	240
acgccggcca	ccacggccac	cactgtcagc	agcacaagca	ggttggctcg	aaggcagcgg	300
cgcacctggt	cccgggaacc	gcagtagccg	cctgctgccc	cgccttggtc	ctcgatggag	360
gccagcgcca	ggcccccggt	ggcggtgggc	tccgcccgtg	cgagcccctt	ggagtctcga	420
ggaggatcgg	tcacatgat	gggaagcacc	ggggtttctt	agcgccctgga	agctggctgg	480
gagcgcttgg	gctccttccc	aggaccgcac	gttcctagga	ctgagttgag	taacagcacc	540
tggagactgg	aactttggag	ggctccttag	agttgcgagt	tcacagcact	gaagttcctt	600
ggctccttga	agctggagtg	tttaaattcc	ccaggctggg	cgtgaggct	tctctgctct	660
gccccgtgtg	ccagatgtcc	gaaagctggg	agttcggagc	gcccgggttc	cttggcccta	720
ggag						724

<210> 38
 <211> 681
 <212> DNA
 <213> Homo sapiens

<400> 38
 ctccctagggc caaggaaccc gggcgctccg aactcccagc ttctggacat ctggcacacg 60
 gggcagagca gagaagcctc agcgcccagc ctgggggaatt taaacactcc agcttccaag 120
 agccaaggaa cttcagtgtc gtgaactcgc aactctaagg agccctccaa agttccagtc 180
 tccaggtgct gttactcaac tcagtcctag gaacgtcggg tcctgggaag gagcccaagc 240
 gctcccagcc agcttccagg cgctaagaaa ccccggtgct tcccatcatg gtgaccgatc 300
 ctccctcgaga ctccaagggg ctgcgcagcg cggagcccac cgccaacggg ggcctggcgc 360
 tggcctccat cgaggaccaa ggcgcggcag caggcgggta ctgcggttcc cgggaccagg 420
 tgcgccgctg ccttcgagcc aacctgcttg tgctgctgac agtgggtggc gtggtggccg 480
 gcgtggcgct gggactgggg gtgtcgggga ccgggggtgc gctggcggtg ggcctggagc 540
 gcttgagcgc cttcgtcttc ccgggcgagc cggaaccacg cacactggag ccaccgctgc 600
 caccggcctt ggcggcctcc tccttgtaga gctcgtccat gccgagagaa gggcgaattc 660
 tgcagatatc catcacactg g 681

<210> 39
 <211> 614
 <212> DNA
 <213> Homo sapiens

<400> 39
 ctccctagggc caaggaaccc gggcgctccg aactcccagc ttctggacat ctggcacacg 60
 gggcagagca gagaagcctc agcgcccagc ctgggggaatt taaacactcc agcttccaag 120
 agccaaggaa cttcagtgtc gtgaactcac aactctaagg agccctccaa agttccagtc 180
 tccaggtgct gttactcaac tcagtcctag gaacgtcggg tcctgggaag gagcccaagc 240
 gctcccagcc agcttccagg cgctaagaaa ccccggtgct tcccatcatg gtggccgatc 300
 ctccctcgaga ctccaagggg ctgcgcagcg cggagcccac cgccaacggg ggcctggcgc 360
 tggcctccat cgaggaccaa ggcgcggcag caggcggcta ctgcggttcc cgggaccagg 420
 tgcgccgctg ccttcgagcc aacctgcttg tgctgctgac agtgggtggc gtggtggccg 480
 gcgtggcgct gggactgggg gtgtcggggg ccgggggtgc gctggcggtg ggcctggagc 540
 gcttgagcgc cttcgtcttc ccgggcgagc cggaaccacg cacactggag ccaccgctgc 600
 caccggcctt ggcg 614

<210> 40
 <211> 689
 <212> DNA
 <213> Homo sapiens

<400> 40
 gatcactagt aacggccgcc agtgtgtgtg aattcgccct tctctcggca tggacgagct 60
 gtacaaggag gaggccgcca aggcgggtg cagcgggtgg tccagtgtgc tgggttccgg 120
 ctgcgccggg aagacgaagg cgtcaagcg ctccaggccc aacgccagcg caccgccggc 180
 ccccgacacc cccagtccca ggcgccagcc ggccaccacg gccaccactg tcagcagcac 240
 aagcaggttg gctcgaaggc agcggcgcac ctgggtcccg gaaccgcagt agccgcctgc 300
 tgccgcgcct tggtcctcga tggaggccag cgccaggccc ccgttggcgg tgggtccgc 360
 cgctgcgagc cccttgaggt ctcgaggag atcggccacc atgatgggaa gcaccggggt 420
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 taggactgag ttgagtaaca gcacctggag actggaactt tggagggtc cttagagttg 540
 tgagttcaca gactgaagt tccttggtc ttggaagctg gagtgtttaa attccccagg 600
 ctgggcgctg aggtttctct gctctgcccc gtgtgccaga tgtccgaaag ctgggagttc 660
 ggagcgcccc ggttccttgg ccctaggag 689

<210> 41
 <211> 730
 <212> DNA
 <213> Homo sapiens

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<400> 41
actatagggc gaattggggc ctctagatgc atgctcgagc ggccgcccagt gtgatggata      60
tctgcagaat tcgcccttct ctcggcattg acgagctgta caaggaggag gccgccaagg      120
ccggtggcag cggtaggtcc agtgtgctgg gttccggctc gcccggaag acgaaggcgc      180
tcaagcgctc caggcccaac gccagcgcac ccccgcccc cgacaccccc agtcccagcg      240
ccacgccggc caccacggcc accactgtca gcagcacaag caggttggct cgaaggcagc      300
ggcgcacctg gtccccggaa ccgcagtagc cgcctgtgc cgcgccttgg tctctgatgg      360
aggccagcgc caggcccccg ttggcggtgg gtcgcccgcc tgcgagcccc ttggagtctc      420
gaggaggatc ggccaccatg atgggaagca ccgggggtttc ttagcgcttg gaagctggct      480
gggagcgctt gggctccttc ccaggaccgc acgttcctag gactgagttg agtaacagca      540
cctggagact ggaacttttg agggctcctt agagttgtga gttcacagca ctgaagtccc      600
ttggctcttg gaagctggag tgtttaaatt ccccgagctg ggcgctgagg cttctctgct      660
ctgccccgtg tgccagatgt ccgaaagctg ggagttcgga gcgcccgggt tccttggccc      720
taggagccgc                                     730

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<210> 42
<211> 684
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(684)
<223> n = g, a, c or t

```

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<400> 42
ctcctagggc caaggaaccc gggcgctccg aactcccagc tttcggacat ctggcacacg      60
gggcagagca gagaagcctc agcgcccagc ctgggggaatt taaacactcc agcttccaag      120
agccaaggaa cttcagtgct gtgaactcac aactctaagg agccctccaa agttccagtc      180
tccagggtgct gttactcaac tcagtccatg gaacgtcggg tcctgggaag gagcccaagc      240
gctcccagcc agcttccagg cgctaagaaa ccccggtgct tcccatcatg gtggccgatc      300
ctcctcgaga ctccaagggg ctgcagcggc cggagcccac cgccaacggg ggcctggcgc      360
tggcctccat cgaggaccaa ggcgcggcag caggcggtta ctgcggttcc cgggaccagg      420
tgcgccgctg ccttcgagcc aacctgcttg tgetgctgac agtggtggcc gtggtggccg      480
gcgtggcgct gggactgggg gtgtcggggg ccgggggtgc gctggcgctg ggcctggagc      540
gcttgagcgc cttcgtcttc ccgggcgagc cggaaccacag cacactggag ccaccgctgc      600
caccggcctt ggcggcctcc tccttgtaga gctcgtccat gccgagagaa gggcgaattc      660
tgcagatatn catcacactg gcgg                                     684

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<210> 43
<211> 2856
<212> DNA
<213> Homo sapiens

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<400> 43
gtaaccgcta ctcccggaca ccagaccacc gccttccgta cacagggggc cgcattccac      60
cctcccggac ctaagagcct ggggtcccctg tttccggagg tccgcttccc ggcccccaga      120
ttctggcatc ccagccctca gtgtccaaga ccaggcagc ccgggtcccc gcctcccgga      180
tccaggcgtc cgggatctgc gccaccagaa cctagcctcc tgcagacctc cgccatctgg      240
gggcaactcaa cctcctggag ccaagggccc cagctcccac ccagagaaac tctcgtattc      300
ccagctccta gggccaagga acccgggcgc tccgaactcc cagctttcgg acatctggca      360
cacggggcag agcagagaag ctcagcgccc agcctgggga atttaaacac tccagcttcc      420
aagagccaag gaacttcagt gctgtgaact cacaactcta aggagccctc caaagttcca      480
gtctccaggt gctgttactc aactcagtc taggaacgtc gggtcctggg aaggagccca      540
agcgtcctca gccagcttcc aggcgctaag aaaccccgtg gcttcccatc atggtggccg      600
atcctcctcg agactccaag gggctcgag cggcggagcc caccgccaac gggggcctgg      660
cgctggcctc catcgaggac caaggcgcgg cagcaggcgg ctactgcggt tccccggacc      720
aggtgcgcgc ctgccttcga gccaacctgc ttgtgctgct gacagtgggt gccgtgggtg      780
ccggcggtgg gctgggactg ggggtgtcgg gggccggggg tgcgctggcg ttgggcccgg      840
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<210> 44
 <211> 541
 <212> PRT
 <213> Homo sapiens

<400> 44

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			20					25					30		
Ala	Ala	Ala	Gly	Gly	Tyr	Cys	Gly	Ser	Arg	Asp	Gln	Val	Arg	Arg	Cys
			35				40					45			
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	50					55					60				
Gly	Val	Ala	Leu	Gly	Leu	Gly	Val	Ser	Gly	Ala	Gly	Gly	Ala	Leu	Ala
65					70					75					80
Leu	Gly	Pro	Glu	Arg	Leu	Ser	Ala	Phe	Val	Phe	Pro	Gly	Glu	Leu	Leu
			85					90					95		
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			100					105					110		
Ile	Gly	Gly	Ala	Ala	Ser	Leu	Asp	Pro	Gly	Ala	Leu	Gly	Arg	Leu	Gly
			115				120						125		
Ala	Trp	Ala	Leu	Leu	Phe	Phe	Leu	Val	Thr	Thr	Leu	Leu	Ala	Ser	Ala
	130						135					140			
Leu	Gly	Val	Gly	Leu	Ala	Leu	Ala	Leu	Gln	Pro	Gly	Ala	Ala	Ser	Ala
145					150					155					160
Ala	Ile	Asn	Ala	Ser	Val	Gly	Ala	Ala	Gly	Ser	Ala	Glu	Asn	Ala	Pro
			165						170					175	

Ser Lys Glu Val Leu Asp Ser Phe Leu Asp Leu Ala Arg Asn Ile Phe
 180 185 190
 Pro Ser Asn Leu Val Ser Ala Ala Phe Arg Ser Tyr Ser Thr Thr Tyr
 195 200 205
 Glu Glu Arg Asn Ile Thr Gly Thr Arg Val Lys Val Pro Val Gly Gln
 210 215 220
 Glu Val Glu Gly Met Asn Ile Leu Gly Leu Val Val Phe Ala Ile Val
 225 230 235 240
 Phe Gly Val Ala Leu Arg Lys Leu Gly Pro Glu Gly Glu Leu Leu Ile
 245 250 255
 Arg Phe Phe Asn Ser Phe Asn Glu Ala Thr Met Val Leu Val Ser Trp
 260 265 270
 Ile Met Trp Tyr Ala Pro Val Gly Ile Met Phe Leu Val Ala Gly Lys
 275 280 285
 Ile Val Glu Met Glu Asp Val Gly Leu Leu Phe Ala Arg Leu Gly Lys
 290 295 300
 Tyr Ile Leu Cys Cys Leu Leu Gly His Ala Ile His Gly Leu Leu Val
 305 310 315 320
 Leu Pro Leu Ile Tyr Phe Leu Phe Thr Arg Lys Asn Pro Tyr Arg Phe
 325 330 335
 Leu Trp Gly Ile Val Thr Pro Leu Ala Thr Ala Phe Gly Thr Ser Ser
 340 345 350
 Ser Ser Ala Thr Leu Pro Leu Met Met Lys Cys Val Glu Glu Asn Asn
 355 360 365
 Gly Val Ala Lys His Ile Ser Arg Phe Ile Leu Pro Ile Gly Ala Thr
 370 375 380
 Val Asn Met Asp Gly Ala Ala Leu Phe Gln Cys Val Ala Ala Val Phe
 385 390 395 400
 Ile Ala Gln Leu Ser Gln Gln Ser Leu Asp Phe Val Lys Ile Ile Thr
 405 410 415
 Ile Leu Val Thr Ala Thr Ala Ser Ser Val Gly Ala Ala Gly Ile Pro
 420 425 430
 Ala Gly Gly Val Leu Thr Leu Ala Ile Ile Leu Glu Ala Val Asn Leu
 435 440 445
 Pro Val Asp His Ile Ser Leu Ile Leu Ala Val Asp Trp Leu Val Asp
 450 455 460
 Arg Ser Cys Thr Val Leu Asn Val Glu Gly Asp Ala Leu Gly Ala Gly
 465 470 475 480
 Leu Leu Gln Asn Tyr Val Asp Arg Thr Glu Ser Arg Ser Thr Glu Pro
 485 490 495
 Glu Leu Ile Gln Val Lys Ser Glu Leu Pro Leu Asp Pro Leu Pro Val
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 Pro Thr Glu Glu Gly Asn Pro Leu Leu Lys His Tyr Arg Gly Pro Ala
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 Gly Asp Ala Thr Val Ala Ser Glu Lys Glu Ser Val Met
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<210> 45

<211> 781

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(781)

<223> n = g, a, c or t

<400> 45

acgcaggacg	ctctcgctga	acttcttgct	cttgccctata	acgcggttcc	gcgaggggac	60
tttggggcgg	gccagcgccc	cggccccctg	cccgggcccc	cgccgcagcg	ccctttgtcg	120
atcaccttca	ggtcaggatg	atgcggtccg	cttgggcatc	ccgcgnccta	caccttgccg	180

ttgatgatgc	gcaccgtctc	cgagaagggc	gaaatgagggc	gggcagcagt	ccggggctgc	240
ccccctgcag	ggtccgggcg	ggggcagggg	acggcgggac	atacggttgg	gcaagncggg	300
ccggcgaatg	ttccttatac	ttgaagcccg	ggttgccacg	ggattagacg	cctttgggag	360
attgcacgca	tatggggcaa	aggaagggcn	accttgggcg	cctcgggcnt	ttngacacgg	420
aaggnaaaat	tgccacattc	cacttgaatt	tgcgccagaa	tangggcncc	cacttncgtg	480
agcgaccact	ttgggcccc	cacggggang	gnacgccgtt	tatcatcaaa	gagggaaaag	540
gcngaaaaaa	aaaagcgtn	tatcagtaga	ggggacaggg	gaattattag	gggggattac	600
cccccccagt	tacaatttta	ccatatttga	ggaggagncc	gcccanaagta	ttaaacatag	660
gacgtgttnc	aaacggggac	nttacaccag	cattancaat	ttccgcaatt	tattatagta	720
tggggattcn	cagaacaaan	gtgggccttt	tgtcgaaaaa	tttaggaata	ggtccccacg	780
g						781

<210> 46
 <211> 733
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(733)
 <223> n = g, a, c or t

<400> 46						
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aaaaggagag	ggagcgtgag	ctgtatgggc	ccaagaagag	gggacccaaa	cccaaaactt	120
tcctcctgaa	ggcgcgggcc	caggccgagg	ccctntccgc	atcagtgatg	tgcatttctc	180
tgtcaagccg	agcgccagtg	cctcctcgcc	caagctgcac	tccagcgag	ccgtgcaccg	240
gctcaagaag	gacatccgcc	gctgccaccg	tatgtcccgc	cgtccccctgc	cccggcccga	300
cccgagggg	ggcagccccg	gactgcgccc	gcccatttcg	cccttctcgg	agacggtgcg	360
catcatcaac	cgccaagggtg	aagccgcggg	agcccaaggc	ggaaccgcat	catcctgaac	420
ctgaaggtag	tcggaacaag	ggcgctggca	cggcaggggg	cgccgggcaa	gggggcccgg	480
gacgttgggc	cgcccaaaaa	aaggntcncc	catcngcggg	gaaacccggc	ggtgtaatag	540
gggcaaaag	gcagaacag	gtaccaggca	aaggaagccg	ggtcacatgg	caggtncgcg	600
gncanagaaa	ccccagcaac	acttgggagg	ccacaccggg	tngcncaacc	ggacctttng	660
ggggggcctc	acatcaccna	tggtaccaag	ggtcgtcacc	aatcgagcac	ggacaagaaa	720
gggggcgaaa	ttc					733

<210> 47
 <211> 776
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(776)
 <223> n = g, a, c or t

<400> 47						
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tcctcctgaa	ggcgtggggc	caggccgagg	ccctccgcat	cagtgatgtg	catttctctg	180
tcaagccgag	cgccagtgcc	tcctcgccca	agctgcactc	cagcgagacc	gtgcaccggc	240
tcaagaagga	catccgcgcg	tgccaccgta	tgtcccgcgg	tcccctgccc	cgcccggacc	300
cgcagggggg	caagccccgg	aactgngccc	gcccattttc	gcccttctcg	gagaccggtg	360
cgcacatcat	accgcaagtg	aagccgcggg	agccaagcgg	aaccgatcat	cctgaaacct	420
gaagggtgat	ggacaagggc	gctggcgggc	gggggcgccc	ggcagggggg	ccggggggcg	480
ctggggcccc	gccccccaaa	anagtcccc	accatcaggg	cgagggaaaa	ccccgggagg	540
anaaagtagc	gggcaaaaang	aagccaanag	gaaangttca	acaaggagag	agaacgnga	600
cgaccanggc	tgatcccgg	ggaagagaaa	cgcnchnaagg	caaaacaaga	ttgggagaag	660
cnacaacnng	tgagcacaac	agccggggcc	actaggcggc	gggnacctac	cctcccctat	720
tggaaacgcag	cnnccgggcan	caattgccga	gaaagaaagg	ggggcgaatt	ctncga	776

<210> 48
 <211> 389
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(389)
 <223> n = g, a, c or t

<400> 48	
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tcgatcaccg ttcaggttca ggatgatgag gttccggctt tgggcatccc ggggggcttc	180
acctttgcng ggttgactga tgcgcaccgg acatctgaga aagggcgaaa tgggacggga	240
cgcagatccg gggcntgccc ccccttgcc ggggggactt cccaggggca cggggganga	300
caagggggga acggggacgg gtgaaccaat taccgnggtt gggccagccg ggcggggaat	360
gggtcccttc ttggaagacc gggtgccaa	389

<210> 49
 <211> 313
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(313)
 <223> n = g, a, c or t

<400> 49	
acgcaggacg ctctcgctga acttcttgct cttgcttata acgcggttcc gcgaggggac	60
tttggggcgg gccagcgccc ggccccctt ccttggagcc cccgcggcca gcaggcccat	120
tgtcagaatt caacctttca aggnntncaag ggatgaattg cgnggtcccg gctntatggg	180
gattccncag aagggaacttt tcaacctttt gccagggata tggaaacgtgg natattgccgg	240
ccaaaccccg gggtnactcc ccagaaagga aaaagggggg cgggaaaaaa tttgggcgct	300
gggggcccgc ggc	313

<210> 50
 <211> 258
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(258)
 <223> n = g, a, c or t

<400> 50	
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ctttggggcg gccagcgccc cgggccccct tgccccgggc ccccgcccgc cnagcggccc	120
tttgtcggat caaccttcag gtcaggatga tgcgggtccg ctttgggctt cccggcgggt	180
ttcaccttgc gggttgatga tgcggcaacc cgggtccttc ccagaagaac agggggcgga	240
caattggngc gcaggggc	258

<210> 51
 <211> 360
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(360)
 <223> n = g, a, c or t

```
<400> 51
acgcaggacg ctctcgctga acttcttgct cttgcctata acgcggttcc gcgaggggac      60
tttggggagg gccagcgccc cggccccccct gcccggggccc ccgcgcgcag cgccttggtc      120
gatcaccttc aggtncagga tgatgcggtt ccgcttgggc tcccgcggct tcaccttgcg      180
gttgatgatg cgcaccgtct ccgagaaggg cgaaatgggc ggggcgcagtc cggggctgcc      240
cccccttgcg ggatccgggc ggggcagggg accggcgggc accatacggg ggcagcggcg      300
ggaatgtcct tcttgaagcc ggtgcacggc ttgcgcttga agttgcagct tgggccaagg      360
```

<210> 52
 <211> 365
 <212> DNA
 <213> Homo sapiens

```
<400> 52
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aaaaggagag ggagcgtgag ctgtatgggc ccaagaagag gggacccaaa cccaaaactt      120
tcctcctgaa ggcgcgggcc caggccgagg ccctccgcag cagtgatgtg catttctctg      180
tcaagccgag cgccagtgcc tcctcgccca agctgcactc cagcgcagcc gtgcaccggc      240
tcaagaagga catccgccgc tgccaccgta tgtcccgccg tcccctgccc cgcccgacc      300
cgcagggggg cagccccgga ctgcgccccg ccatttcgcc cttctcagag acggtgcgca      360
tcatac
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<210> 53
 <211> 539
 <212> DNA
 <213> Homo sapiens

```
<400> 53
gacgcaggac gctctcgctg aacttcttgg ctcttgccca taacgcgggt ccgcgagggg      60
actttggggc gggccagcgc cccggcccccc tgcccggggc ccgcgcgggc cctttataacc      120
ttcagttcag atgatgcggt tccgcttggg ctcccgcggc ttcaccttgc ggttgatgat      180
gcgcaccgtc tccgagaagg gcgaaatggg cgggcgcagc ccggggctgc ccccttgcg      240
gtccggggcg ggagggggac ggcggggacat acggtggcag cggcggatgt cttctctgag      300
ccggtgcacg gctgcgctgg agtgcagctt gggcgaggag gcaactggcg tcggcttgac      360
agagaaatgc acatcactga tgcggagggc ctcggccttg gcccgcgcct tcaggaggaa      420
agttttgggt ttgggtcccc tcttcttggg ccatacagc tcacgctccc tctccttttg      480
ttcgaaggct gcaatgagcc gcgagtcag gatgttctcc tcgggctccc aagtgcgtg      539
```

<210> 54
 <211> 644
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(644)
 <223> n = g, a, c or t

```
<400> 54
acagcacttg ggagcccag gagaacatcc tggactcgcg gctcattgca gccttcgaac      60
aaaaggagag ggagcgtgag ctgtatgggc ccaagaagag gggacccaaa cccaaaactt      120
tcctcctgaa ggcgcgggcc caggccgagg ccctccgcag cagtgatgtg catttctctg      180
tcaagccgag cgccagtgcc tcctcgccca agctgcactc cagcgcagcc gtgcaccggc      240
tcaagaagga catccgccgc tgccaccgta tgtcccgccg tcccctgccc cgcccgacc      300
cgcagggggg cagccccgga ctgcgccccg ccatttcgcc cttctcgag acggtgcgca      360
tcataacccg caaggtgaag ccgcggggag ccaagcggaa ccgcatcatc ctgaacctga      420
```

aggtgatcga	caagggcgct	ggcggcgsgga	ggcgccgggc	agggggccgg	gncgctggcc	480
cgcccccaaa	gtccctcgc	ggaaacccgc	ggtaaatagg	caaagaagca	aggaaggtca	540
ggcgagaggc	ggtccctgcg	tccgnagaaa	cccagcacac	ctggacggcc	accgatgcca	600
cnggcctggg	ggactcctcc	tggtacacgg	tcggcacatg	ccgg		644

<210> 55
 <211> 424
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(424)
 <223> n = g, a, c or t

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aaaaggagag	ggagcgtgag	ctgtatgggc	ccaagaagag	gggacccaaa	cccaaaactt	120
tcctcctgaa	ggcgcgggcc	caggccgagg	ccctccgcac	cagtgatgtg	cattttctctg	180
tcaagccgag	cgccagtgc	tcctcgccca	agctgcactc	cagcgcagcc	gtgcaccggc	240
tcaagaagga	catccgccgc	tgccaccgta	tgteccgcgc	tccctgccc	cgcccgacc	300
cgcagggggg	cagccccgga	ctgcgccgc	ccattatcag	cccttctcgg	agacgggtgcg	360
catcatcaac	cgcaagggtga	agccgcggga	gcccgaagcgg	aancgcatca	tccatgaacc	420
tgaa						424

<210> 56
 <211> 506
 <212> DNA
 <213> Homo sapiens

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atcaccttca	ggttcaggat	gatgcggttc	cgcttgggct	ccgcgggctt	caccttgccg	180
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ccctgcgggt	ccgggcgggg	caggggacgg	cgggacatac	ggtggcagcg	gcggatgtcc	300
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tccttttgtt	cgaaggctgc	aatgag				506

<210> 57
 <211> 6014
 <212> DNA
 <213> Homo sapiens

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tcgcggccga	atccatcatc	aaacggcgga	tccgaaagg	acgcacagag	tacctgggtga	120
aatggaagg	gtgggcgac	aagtacagca	cttgggagcc	cgaggagaa	atcctggact	180
cgcggctcat	tgacgccttc	gaacaaaagg	agagggagcg	tgagctgtat	gggcccaga	240
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agagcaagaa	gttcagcgag	agcgtcctgc	gtacacagat	ccgccacatg	aagttcggcg	720
cctttgcgct	gtacaagcct	ccgcccgcgc	ccctggtagc	cccgtccccc	ggcaaggctg	780
aggcctcagc	cccgggcctc	gggctacttc	tgccgcgcgc	cgccgcccc	tacgacgccc	840

gcagctctgg	ctcctccggc	tgccccctgc	ctacaccaca	gtcctctgac	cccgacgaca	900
cgccccccaa	gctcctcccc	gagaccgtga	gcccattccgc	ccccagctgg	cgcgagccgg	960
aggtgctcga	cctgtccctc	cctccccagt	cggcagccac	cagcaagcgg	gcaccgcctg	1020
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<210> 58
<211> 412
<212> PRT
<213> Homo sapiens

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<400> 58
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Ile Lys Arg Arg Ile Arg Lys Gly Arg Ile Glu Tyr Leu Val Lys Trp
          20          25          30
Lys Gly Trp Ala Ile Lys Tyr Ser Thr Trp Glu Pro Glu Glu Asn Ile
          35          40          45
Leu Asp Ser Arg Leu Ile Ala Ala Phe Glu Gln Lys Glu Arg Glu Arg
          50          55          60
Glu Leu Tyr Gly Pro Lys Lys Arg Gly Pro Lys Pro Lys Thr Phe Leu
          65          70          75          80
Leu Lys Ala Arg Ala Gln Ala Glu Ala Leu Arg Ile Ser Asp Val His
          85          90          95
Phe Ser Val Lys Pro Ser Ala Ser Ala Ser Ser Pro Lys Leu His Ser
          100          105          110
Ser Ala Ala Val His Arg Leu Lys Lys Asp Ile Arg Arg Cys His Arg
          115          120          125
Met Ser Arg Arg Pro Leu Pro Arg Pro Asp Pro Gln Gly Gly Ser Pro
          130          135          140
Gly Leu Arg Pro Pro Ile Ser Pro Phe Ser Glu Thr Val Arg Ile Ile
          145          150          155          160
Asn Arg Lys Val Lys Pro Arg Glu Pro Lys Arg Asn Arg Ile Ile Leu
          165          170          175
Asn Leu Lys Val Ile Asp Lys Gly Ala Gly Gly Gly Gly Ala Gly Gln
          180          185          190
Gly Ala Gly Ala Leu Ala Arg Pro Lys Val Pro Ser Arg Asn Arg Val
          195          200          205
Ile Gly Lys Ser Lys Lys Phe Ser Glu Ser Val Leu Arg Thr Gln Ile
          210          215          220

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Arg His Met Lys Phe Gly Ala Phe Ala Leu Tyr Lys Pro Pro Pro Ala
 225 230 235 240
 Pro Leu Val Ala Pro Ser Pro Gly Lys Ala Glu Ala Ser Ala Pro Gly
 245 250 255
 Pro Gly Leu Leu Leu Ala Ala Pro Ala Ala Pro Tyr Asp Ala Arg Ser
 260 265 270
 Ser Gly Ser Ser Gly Cys Pro Ser Pro Thr Pro Gln Ser Ser Asp Pro
 275 280 285
 Asp Asp Thr Pro Pro Lys Leu Leu Pro Glu Thr Val Ser Pro Ser Ala
 290 295 300
 Pro Ser Trp Arg Glu Pro Glu Val Leu Asp Leu Ser Leu Pro Pro Glu
 305 310 315 320
 Ser Ala Ala Thr Ser Lys Arg Ala Pro Pro Glu Val Thr Ala Ala Ala
 325 330 335
 Gly Pro Ala Pro Pro Thr Ala Pro Glu Pro Ala Gly Ala Ser Ser Glu
 340 345 350
 Pro Glu Ala Gly Asp Trp Arg Pro Glu Met Ser Pro Cys Ser Asn Val
 355 360 365
 Val Val Thr Asp Val Thr Ser Asn Leu Leu Thr Val Thr Ile Lys Glu
 370 375 380
 Phe Cys Asn Pro Glu Asp Phe Glu Lys Val Ala Ala Gly Val Ala Gly
 385 390 395 400
 Ala Ala Gly Gly Gly Ser Ile Gly Ala Ser Lys
 405 410

<210> 59
 <211> 108
 <212> DNA
 <213> Homo sapiens

<400> 59
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 catgaaacat cctatcatct gtaggctcat tcattttctct aacagcag 108

<210> 60
 <211> 108
 <212> DNA
 <213> Homo sapiens

<400> 60
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 cggggtagtc cgagtaacgt cggggcattc cggataggcc gagaaagt 108

<210> 61
 <211> 110
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(110)
 <223> n = g, a, c or t

<400> 61
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 atgaaacatc ctatnatact gtaggctcca ttcattttctc tnacagcaga 110

<210> 62
 <211> 110
 <212> DNA
 <213> Homo sapiens

<400> 62
ctgctgttag aagaaatgaa tgagccttac agatgatagg atgtttcatg tgggtgtatgc 60
atcggggtag tccgagtaac gtcggggcat tccgatagg ccgagaaagt 110

<210> 63
<211> 1570
<212> DNA
<213> Homo sapiens

<400> 63
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aaagacattg gaacactata cctattattc ggcgcatgag ctggagtccct aggcacagct 120
ctaagcctcc ttattcgagc cgagctgggc cagccaggca accttctagg taacgaccac 180
atctacaacg ttatcgtcac agcccatgca tttgtaataa tcttcttcat agtaataccc 240
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gcgtttcccc gcataaacia cataagcttc tgactcttac ctccctctct cctactcctg 360
ctcgcatctg ctatagtggg ggcggagca ggaacaggtt gaacagtcta cctccctta 420
gcagggaact actccacccc tggagcctcc gtagacctaa ccatcttctc cttacacctt 480
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<210> 64
<211> 513
<212> PRT
<213> Homo sapiens

<400> 64
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Thr Leu Tyr Leu Leu Phe Gly Ala Trp Ala Gly Val Leu Gly Thr Ala
20 25 30
Leu Ser Leu Leu Ile Arg Ala Glu Leu Gly Gln Pro Gly Asn Leu Leu
35 40 45
Gly Asn Asp His Ile Tyr Asn Val Ile Val Thr Ala His Ala Phe Val
50 55 60
Met Ile Phe Phe Met Val Met Pro Ile Met Ile Gly Gly Phe Gly Asn
65 70 75 80
Trp Leu Val Pro Leu Met Ile Gly Ala Pro Asp Met Ala Phe Pro Arg
85 90 95
Met Asn Asn Met Ser Phe Trp Leu Leu Pro Pro Ser Leu Leu Leu
100 105 110
Leu Ala Ser Ala Met Val Glu Ala Gly Ala Gly Thr Gly Trp Thr Val
115 120 125

Tyr	Pro	Pro	Leu	Ala	Gly	Asn	Tyr	Ser	His	Pro	Gly	Ala	Ser	Val	Asp
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Leu	Thr	Ile	Phe	Ser	Leu	His	Leu	Ala	Gly	Val	Ser	Ser	Ile	Leu	Gly
145					150					155					160
Ala	Ile	Asn	Phe	Ile	Thr	Thr	Ile	Ile	Asn	Met	Lys	Pro	Pro	Ala	Met
				165					170						175
Thr	Gln	Tyr	Gln	Thr	Pro	Leu	Phe	Val	Trp	Ser	Val	Leu	Ile	Thr	Ala
			180					185					190		
Val	Leu	Leu	Leu	Leu	Ser	Leu	Pro	Val	Leu	Ala	Ala	Gly	Ile	Thr	Met
	195					200						205			
Leu	Leu	Thr	Asp	Arg	Asn	Leu	Asn	Thr	Thr	Phe	Phe	Asp	Pro	Ala	Gly
	210				215							220			
Gly	Gly	Asp	Pro	Ile	Leu	Tyr	Gln	His	Leu	Phe	Trp	Phe	Phe	Gly	His
225					230					235					240
Pro	Glu	Val	Tyr	Ile	Leu	Ile	Leu	Pro	Gly	Phe	Gly	Met	Ile	Ser	His
				245					250					255	
Ile	Val	Thr	Tyr	Tyr	Ser	Gly	Lys	Lys	Glu	Pro	Phe	Gly	Tyr	Met	Gly
			260				265						270		
Met	Val	Trp	Ala	Met	Met	Ser	Ile	Gly	Phe	Leu	Gly	Phe	Ile	Val	Trp
	275					280						285			
Ala	His	Met	Phe	Thr	Val	Gly	Met	Asp	Val	Asp	Thr	Arg	Ala	Tyr	
	290				295					300					
Phe	Thr	Ser	Ala	Thr	Met	Ile	Ile	Ala	Ile	Pro	Thr	Gly	Val	Lys	Val
305					310					315					320
Phe	Ser	Trp	Leu	Ala	Thr	Leu	His	Gly	Ser	Asn	Met	Lys	Trp	Ser	Ala
				325					330					335	
Ala	Val	Leu	Trp	Ala	Leu	Gly	Phe	Ile	Phe	Leu	Phe	Thr	Val	Gly	Gly
			340				345						350		
Leu	Thr	Gly	Ile	Val	Leu	Ala	Asn	Ser	Ser	Leu	Asp	Ile	Val	Leu	His
	355					360						365			
Asp	Thr	Tyr	Tyr	Val	Val	Ala	His	Phe	His	Tyr	Val	Leu	Ser	Met	Gly
	370				375						380				
Ala	Val	Phe	Ala	Ile	Met	Gly	Gly	Phe	Ile	His	Trp	Phe	Pro	Leu	Phe
385					390					395					400
Ser	Gly	Tyr	Thr	Leu	Asp	Gln	Thr	Tyr	Ala	Lys	Ile	His	Phe	Thr	Ile
				405					410					415	
Met	Phe	Ile	Gly	Val	Asn	Leu	Thr	Phe	Phe	Pro	Gln	His	Phe	Leu	Gly
			420				425						430		
Leu	Ser	Gly	Met	Pro	Arg	Arg	Tyr	Ser	Asp	Tyr	Pro	Asp	Ala	Tyr	Thr
		435					440					445			
Thr	Trp	Asn	Ile	Leu	Ser	Ser	Val	Gly	Ser	Phe	Ile	Ser	Leu	Thr	Ala
	450					455						460			
Val	Met	Leu	Met	Ile	Phe	Met	Ile	Trp	Glu	Ala	Phe	Ala	Ser	Lys	Arg
465					470					475					480
Lys	Val	Leu	Met	Val	Glu	Glu	Pro	Ser	Met	Asn	Leu	Glu	Trp	Leu	Tyr
				485					490					495	
Gly	Cys	Pro	Pro	Pro	Tyr	His	Thr	Phe	Glu	Glu	Pro	Val	Tyr	Met	Lys
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Ser

<210> 65
 <211> 425
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(425)
 <223> n = g, a, c or t

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<400> 65
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gacccaaagg gtgagccagn ctgnaccatc cagcagcaag atgtgcagac aggtacagna      120
ggaagaanac atgggtggcc ttcatgagcc ccatccgctc cactgtggnc cgcanactcc      180
cggaactcat ctgtcagctc tttattcttg gtgggntcaa agctgggctg ntctggagac      240
agttctccaa tcaggagaga gttcatatac ttcttcacaa ggcccttggt gatgtggaag      300
gccacaaagg gatccgtggn atcctgnccg gngtagtggc tgatganccg ggagccccct      360
gnatgccggc ggagtgaact cgctgatgtt gtacacctta cggtcgatca ctanccaccg      420
ctcct                                         425

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<210> 66
<211> 442
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(442)
<223> n = g, a, c or t

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<400> 66
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agcgagttca cccgccggca tccagggggc tcccggttca tcagccacta cgccgggnag      120
gatgccacgg atccctttgt ggccttccac atcaacaagg gccttgctga agaagtatat      180
gaactctctc ctgattggag aactgtctcc agagcagccc agctttgagc ccaccaagaa      240
taaagagctg acagatgagt tccgggagct gcggggccaca gtggagcgga tggggctcat      300
gaaggccaac catgtcttct tctgtctgta cctgctgcac atcttgctgc tggatggtgc      360
agcctggctc accctttggg tctttgggac gtcctttttg cccttccctc tctgtgcggt      420
gctgctcagt gcagttcagg cc                                         442

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```

<210> 67
<211> 1335
<212> DNA
<213> Homo sapiens

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<400> 67
atggcccccg acccgttggc cgccgagacc gcggctcagg gacttaccct gcgctacttc      60
acctgggacg aggtggccca gcgctcaggg tgcgaggagc ggtggctagt gatcgaccgt      120
aagtggtaca acatcagcga gttcaccgcg cggcatccag ggggctcccg ggtcatcagc      180
cactacgccc ggcaggatgc caccggatccc tttgtggcct tccacatcaa caagggcctt      240
gtgaagaagt atatgaactc tctcctgatt ggagaactgt ctccagagca gccagcttt      300
gagcccacca agaataaaga gctgacagat gagttccggg agctgcgggc cacagtggag      360
cggatggggc tcatgaaggc caaccatgtc ttcttccctg tgtacctgct gcacatcttg      420
ctgctggatg gtgcagcctg gctcaccctt tgggtctttg ggacgtcctt tttgcccttc      480
ctcctctgtg cgggtgctgt cagtgcagtt caggcccagg ctggctggct gcagcatgac      540
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attggccacc tgaagggggc ccccgccagt tgggtggaacc acatgcactt ccagcaccat      660
gccaagccca actgcttccg caaagaccca gacatcaaca tgcacccctt cttctttgcc      720
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<210> 68
 <211> 4213
 <212> DNA
 <213> Homo sapiens

<400> 68

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<210> 69

<211> 444

<212> PRT

<213> Homo sapiens

<400> 69

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Glu	Arg	Trp	Leu	Val	Ile	Asp	Arg	Lys	Val	Tyr	Asn	Ile	Ser	Glu	Phe
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Thr	Arg	Arg	His	Pro	Gly	Gly	Ser	Arg	Val	Ile	Ser	His	Tyr	Ala	Gly
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Gln	Asp	Ala	Thr	Asp	Pro	Phe	Val	Ala	Phe	His	Ile	Asn	Lys	Gly	Leu
65					70				75						80
Val	Lys	Lys	Tyr	Met	Asn	Ser	Leu	Leu	Ile	Gly	Glu	Leu	Ser	Pro	Glu
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Gln	Pro	Ser	Phe	Glu	Pro	Thr	Lys	Asn	Lys	Glu	Leu	Thr	Asp	Glu	Phe
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Arg	Glu	Leu	Arg	Ala	Thr	Val	Glu	Arg	Met	Gly	Leu	Met	Lys	Ala	Asn
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His	Val	Phe	Phe	Leu	Leu	Tyr	Leu	Leu	His	Ile	Leu	Leu	Leu	Asp	Gly
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Leu	Leu	Cys	Ala	Val	Leu	Leu	Ser	Ala	Val	Gln	Ala	Gln	Ala	Gly	Trp
			165					170						175	
Leu	Gln	His	Asp	Phe	Gly	His	Leu	Ser	Val	Phe	Ser	Thr	Ser	Lys	Trp
		180					185						190		
Asn	His	Leu	Leu	His	His	Phe	Val	Ile	Gly	His	Leu	Lys	Gly	Ala	Pro
	195					200						205			
Ala	Ser	Trp	Trp	Asn	His	Met	His	Phe	Gln	His	His	Ala	Lys	Pro	Asn
	210				215						220				
Cys	Phe	Arg	Lys	Asp	Pro	Asp	Ile	Asn	Met	His	Pro	Phe	Phe	Phe	Ala
225					230					235					240
Leu	Gly	Lys	Ile	Leu	Ser	Val	Glu	Leu	Gly	Lys	Gln	Lys	Lys	Lys	Tyr
			245					250						255	
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Ala	Leu	Leu	Pro	Leu	Tyr	Phe	Gln	Trp	Tyr	Ile	Phe	Tyr	Phe	Val	Ile
	275					280						285			
Gln	Arg	Lys	Lys	Trp	Val	Asp	Leu	Ala	Trp	Met	Ile	Thr	Phe	Tyr	Val
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Arg Phe Phe Leu Thr Tyr Val Pro Leu Leu Gly Leu Lys Ala Phe Leu
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 Gly Leu Phe Phe Ile Val Arg Phe Leu Glu Ser Asn Trp Phe Val Trp
 325 330 335
 Val Thr Gln Met Asn His Ile Pro Met His Ile Asp His Asp Arg Asn
 340 345 350
 Met Asp Trp Val Ser Thr Gln Leu Gln Ala Thr Cys Asn Val His Lys
 355 360 365
 Ser Ala Phe Asn Asp Trp Phe Ser Gly His Leu Asn Phe Gln Ile Glu
 370 375 380
 His His Leu Phe Pro Thr Met Pro Arg His Asn Tyr His Lys Val Ala
 385 390 395 400
 Pro Leu Val Gln Ser Leu Cys Ala Lys His Gly Ile Glu Tyr Gln Ser
 405 410 415
 Lys Pro Leu Leu Ser Ala Phe Ala Asp Ile Ile His Ser Leu Lys Glu
 420 425 430
 Ser Gly Gln Leu Trp Leu Asp Ala Tyr Leu His Gln
 435 440

<210> 70
 <211> 1044
 <212> DNA
 <213> Homo sapiens

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<210> 71
 <211> 190
 <212> PRT
 <213> Homo sapiens

<400> 71
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 Thr Val Ile His Pro Lys Ala Arg Ile Ile Ala Glu Ala Gly Pro Ile
 35 40 45
 Val Ile Gly Glu Gly Asn Leu Ile Glu Glu Gln Ala Leu Ile Ile Asn
 50 55 60
 Ala Tyr Pro Asp Asn Ile Thr Pro Asp Thr Glu Asp Pro Glu Pro Lys
 65 70 75 80

Pro	Met	Ile	Ile	Gly	Thr	Asn	Asn	Val	Phe	Glu	Val	Gly	Cys	Tyr	Ser
				85					90					95	
Gln	Ala	Met	Lys	Met	Gly	Asp	Asn	Asn	Val	Ile	Glu	Ser	Lys	Ala	Tyr
			100					105					110		
Val	Gly	Arg	Asn	Val	Ile	Leu	Thr	Ser	Gly	Cys	Ile	Ile	Gly	Ala	Cys
			115					120					125		
Cys	Asn	Leu	Asn	Thr	Phe	Glu	Val	Ile	Pro	Glu	Asn	Thr	Val	Ile	Tyr
			130				135				140				
Gly	Ala	Asp	Cys	Leu	Arg	Arg	Val	Gln	Thr	Glu	Arg	Pro	Gln	Pro	Gln
145					150					155					160
Thr	Leu	Gln	Leu	Asp	Phe	Leu	Met	Lys	Ile	Leu	Pro	Asn	Tyr	His	His
				165					170					175	
Leu	Lys	Lys	Thr	Met	Lys	Gly	Ser	Ser	Thr	Pro	Val	Lys	Asn		
			180					185					190		

<210> 72
 <211> 288
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)...(288)
 <223> n = g, a, c or t

<400> 72	
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<210> 73
 <211> 285
 <212> DNA
 <213> Homo sapiens

<400> 73	
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cacattcttg acattgaagc ccacattgtc cccaggaaga gcttcaactca aagcttcattg	180
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<210> 74
 <211> 285
 <212> DNA
 <213> Homo sapiens

<400> 74	
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cgctgtggca acgttgctgg tgacagcaaa aatgacccac caatggaagc agctggcttc	240
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<210> 75
 <211> 285
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)...(285)
 <223> n = g, a, c or t

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<210> 76
 <211> 1833
 <212> DNA
 <213> Homo sapiens

<400> 76
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 aacaacttga ccaaaaaattt gtcacagaat tttgagaccc attaaaaaag ttaaatgaga 1740
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1800
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa 1833

<210> 77
 <211> 462
 <212> PRT
 <213> Homo sapiens

<400> 77
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 Asp Ser Gly Lys Ser Thr Thr Thr Gly His Leu Ile Tyr Lys Cys Gly
 20 25 30

Gly Ile Asp Lys Arg Thr Ile Glu Lys Phe Glu Lys Glu Ala Ala Glu
 35 40 45
 Met Gly Lys Gly Ser Phe Lys Tyr Ala Trp Val Leu Asp Lys Leu Lys
 50 55 60
 Ala Glu Arg Glu Arg Gly Ile Thr Ile Asp Ile Ser Leu Trp Lys Phe
 65 70 75 80
 Glu Thr Ser Lys Tyr Tyr Val Thr Ile Ile Asp Ala Pro Gly His Arg
 85 90 95
 Asp Phe Ile Lys Asn Met Ile Thr Gly Thr Ser Gln Ala Asp Cys Ala
 100 105 110
 Val Leu Ile Val Ala Ala Gly Val Gly Glu Phe Glu Ala Gly Ile Ser
 115 120 125
 Lys Asn Gly Gln Thr Arg Glu His Ala Leu Leu Ala Tyr Thr Leu Gly
 130 135 140
 Val Lys Gln Leu Ile Val Gly Val Asn Lys Met Asp Ser Thr Glu Pro
 145 150 155 160
 Pro Tyr Ser Gln Lys Arg Tyr Glu Glu Ile Val Lys Glu Val Ser Thr
 165 170 175
 Tyr Ile Lys Lys Ile Gly Tyr Asn Pro Asp Thr Val Ala Phe Val Pro
 180 185 190
 Ile Ser Gly Trp Asn Gly Asp Asn Met Leu Glu Pro Ser Ala Asn Met
 195 200 205
 Pro Trp Phe Lys Gly Trp Lys Val Thr Arg Lys Asp Gly Asn Ala Ser
 210 215 220
 Gly Thr Thr Leu Leu Glu Ala Leu Asp Cys Ile Leu Pro Pro Thr Arg
 225 230 235 240
 Pro Thr Asp Lys Pro Leu Arg Leu Pro Leu Gln Asp Val Tyr Lys Ile
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 <212> PRT
 <213> Homo sapiens

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35      40      45
Lys Trp Ile Pro Ala Arg Ser Thr Arg Arg Asp Asp Asn Ser Ala Ala
50      55      60
Asn Asn Ser Ala Asn Glu Lys Glu Arg His Asp Ala Ile Phe Arg Lys
65      70      75      80
Val Arg Gly Ile Leu Asn Lys Leu Thr Pro Glu Lys Phe Asp Lys Leu
85      90      95
Cys Leu Glu Leu Leu Asn Val Gly Val Glu Ser Lys Leu Ile Leu Lys
100     105     110
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115     120     125
Ser Ser Leu Tyr Ala Gln Leu Cys Leu Arg Leu Ala Glu Asp Ala Pro
130     135     140

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Ser	Asp	Glu	Asp	Lys	Glu	Lys	Ala	Ser	Ser	Leu	Ile	Ser	Leu	Leu	Lys	595	600		605
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770 775 780
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785 790 795 800
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Phe Thr Arg Trp Cys Asn Glu His Leu Lys Cys Val Ser Lys Arg Ile
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Ala Asn Leu Gln Thr Asp Leu Ser Asp Gly Leu Arg Leu Ile Ala Leu
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 <213> Homo sapiens

<400> 90

Met	Ala	Asp	Phe	Leu	Pro	Ser	Arg	Ser	Val	Leu	Ser	Val	Cys	Phe	Pro
1				5					10					15	
Gly	Cys	Leu	Leu	Thr	Ser	Gly	Glu	Ala	Glu	Gln	Gln	Arg	Lys	Ser	Lys
			20					25					30		
Glu	Ile	Asp	Lys	Cys	Leu	Ser	Arg	Glu	Lys	Thr	Tyr	Val	Lys	Arg	Leu
		35					40					45			
Val	Lys	Ile	Leu	Leu	Leu	Gly	Ala	Gly	Glu	Ser	Gly	Lys	Ser	Thr	Phe
	50					55					60				
Leu	Lys	Gln	Met	Arg	Ile	His	Gly	Gln	Asp	Phe	Asp	Gln	Arg	Ala	
65				70					75					80	
Arg	Glu	Glu	Phe	Arg	Pro	Thr	Ile	Tyr	Ser	Asn	Val	Ile	Lys	Gly	Met
			85						90					95	
Arg	Val	Leu	Val	Asp	Ala	Arg	Glu	Lys	Leu	His	Ile	Pro	Trp	Gly	Asp
			100					105						110	
Asn	Ser	Asn	Gln	Gln	His	Gly	Asp	Lys	Met	Met	Ser	Phe	Asp	Thr	Arg
		115					120						125		
Ala	Pro	Met	Ala	Ala	Gln	Gly	Met	Val	Glu	Thr	Arg	Val	Phe	Leu	Gln
	130					135						140			
Tyr	Leu	Pro	Ala	Ile	Arg	Ala	Leu	Trp	Ala	Asp	Ser	Gly	Ile	Gln	Asn
145				150						155					160
Ala	Tyr	Asp	Arg	Arg	Arg	Glu	Phe	Gln	Leu	Gly	Glu	Ser	Val	Lys	Tyr
			165						170					175	
Phe	Leu	Asp	Asn	Leu	Asp	Lys	Leu	Gly	Glu	Pro	Asp	Tyr	Ile	Pro	Ser
			180					185					190		
Gln	Gln	Asp	Ile	Leu	Leu	Ala	Arg	Arg	Pro	Thr	Lys	Gly	Ile	His	Glu
		195					200						205		
Tyr	Asp	Phe	Glu	Ile	Lys	Asn	Val	Pro	Phe	Lys	Met	Leu	Asp	Val	Gly
	210					215					220				
Gly	Gln	Arg	Ser	Glu	Arg	Lys	Arg	Trp	Phe	Glu	Cys	Phe	Asp	Ser	Val
225				230						235					240
Thr	Ser	Ile	Leu	Phe	Leu	Val	Ser	Ser	Ser	Glu	Phe	Asp	Gln	Val	Leu
			245						250					255	
Met	Glu	Asp	Arg	Leu	Thr	Asn	Arg	Leu	Thr	Glu	Ser	Leu	Asn	Ile	Phe
			260					265						270	
Glu	Thr	Ile	Val	Asn	Asn	Arg	Val	Phe	Ser	Asn	Val	Ser	Ile	Ile	Leu
		275					280						285		
Phe	Leu	Asn	Lys	Thr	Asp	Leu	Leu	Glu	Glu	Lys	Val	Gln	Ile	Val	Ser
	290					295					300				
Ile	Lys	Asp	Tyr	Phe	Leu	Glu	Phe	Glu	Gly	Asp	Pro	His	Cys	Leu	Arg
305					310					315					320
Asp	Val	Gln	Lys	Phe	Leu	Val	Glu	Cys	Phe	Arg	Asn	Lys	Arg	Arg	Asp
			325						330					335	
Gln	Gln	Gln	Lys	Pro	Leu	Tyr	His	His	Phe	Thr	Thr	Ala	Ile	Asn	Thr
			340				345						350		
Glu	Asn	Ile	Arg	Leu	Val	Phe	Arg	Asp	Val	Lys	Asp	Thr	Ile	Leu	His
		355					360					365			
Asp	Asn	Leu	Lys	Gln	Leu	Met	Leu	Gln							
	370					375									

<210> 91
 <211> 746
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(746)
 <223> n = g, a, c or t

```

<400> 91
tttgccctga cccgggccat tgccagaaga cgtcttctcg gggcgccagg attcaccttt      60
ccttcccgcac ctcaacttct tcgcggccga ctctgtctc cagctatccg gaggcctctc      120
ccctagccta cagggttctc tcgacagccc tgggtcccttt ttccgatgga caaagagctt      180
ggattttttc accaagtacc gctctgtgcc caattcggag cctgcnaggt ttaccccccc      240
cctttaaaaa agcccccttt ggttatatac cccttaccct tacccccctg gggttacccc      300
ttntatacgg aaaccccccc ctggtcggcc ttccccctta tggggccccg gtcttaaaac      360
ttggggaaac acaanaactt ccggaaaggg acccccattt cgatttaccg cgcaaaagcc      420
ccccnctttt cccaaanggg ataccggcca agttntaaag gaaacccttt taanatttgg      480
attgaggatt atttattata ggggccctat taaaacaaac aacaacactt ctttttatcc      540
acaaagtggg ngggatntaa atgatttatc aaancccggt tgtggtaaca aaacaatttt      600
tttacaaaac gncccgggag tatattagtt ataaaaaaaa tattcctccc cgaaaaacat      660
tattctcccc ccccccttat atattttaac accccatata ttcaacngct atttattatt      720
gccaccatat ttttacccca taaata                                     746
  
```

<210> 92
 <211> 305
 <212> DNA
 <213> Homo sapiens

```

<400> 92
tttgccctga cccgggccat tgccagaaga cgtcttctcg gggcgccagg attcaccttt      60
ccttcccgcac ctcaacttct tcgcggccga ctctgtctc cagctatccg gaggcctctc      120
ccccttagcc tacagggttc tctcgacagc ccgggtcccg ttttttattt ccccggaagg      180
gggaagggaa ggctggggat tgtgtttcga cgcagtagc tctgtgccat cgacctgcag      240
tttcctaacc ctgtttcctc ctcccgggtc ttccgacccc cgcgctcctt ggccgtctac      300
tgaa                                     305
  
```

<210> 93
 <211> 709
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(709)
 <223> n = g, a, c or t

```

<400> 93
aaaangtata gactcactat agtggcgaat tgggnccatc tagatgcatg ctcgagcggc      60
cgccagggtg gatggatatc tgcagaattg ctgccgctta cgacagtcag tgagtatcag      120
acctcagagc tagatcgagc ggccgcttta tctatctaac cactgtgctg ggttcgtgcg      180
gnccccgcta gagtttaatg tattcctgag atttcactgg acaggagtct accaaacgga      240
atTTTTctgt gtgaatttta aaagataaacc gagtgcccaa tattttagaa cgaagaagaa      300
agggagtggg ttaaacgcta agttcagtaa tacntgaag tttttagcaa aagcgacata      360
agttctatgg cgactgaggg gtgggagagg ctcgacgnnt ttnaccaagt agacgggcca      420
aggaaggcgc gnggggggtcc ggaaacangg gaccgggggc agggggaggg gaaaaaccag      480
ggttacacgc ngaaaaacct ggccaaggga ctacccgga cgtatgaggg ccaaacaaaa      540
gaaaggcccg attaacctta tgggggattg gaaaaaaaaa atccccaaag ggcttccctat      600
atccccctcc ggggggaaaaa aacacagggg gggaaacccc cgggaggccc tatggatcca      660
ggacacgaaa gcgaaaaccc ccctgggtaa gagagcccta agggggggga      709
  
```

<210> 94
 <211> 667
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(667)
 <223> n = g, a, c or t

<400> 94
 cccccctaga gtttaattat tcctgagatt tcaactggaag gagtctacca aacggaattt 60
 ttctgtgtga attttaaaag ataaccgagt gcccaatatt ttagaagaag aagaaaggga 120
 gtggattaaa cgctaattca gtaatacctg aatttttagca aaacacataa gtctatgcga 180
 ctgaggggtgg gagaggctcg atttttccag tagacggcca aggagcgcgg gggtcgaaag 240
 gaccgggagg aggaaacagg ttagggaaac tgcaggctga tggcacagag cgtactggtg 300
 aaaaaatcca gctcttctc ggaaaaagg accgggctgt cgagagaacc ctgtaggcta 360
 ggggagaggc ctccggatag ctggagacag gagtgcggcg cgaagaagtt gaggtcggga 420
 aggaaagggt aatcctggcg ccccgagaag acgtcttctg gcaatggccc gggctccagc 480
 ccgacggccc cgcgcagcgc gcaagccggg acttcgaacg cacnctgca gccctcataa 540
 gcgaacggca taaaaggccc ggggggtcca gcgcattaag ggcccccccg accatcctcc 600
 gggcgagggt aacaagcggg gttacccaag gccggcggag aggtcccag gccattngac 660
 tagggnt 667

<210> 95
 <211> 438
 <212> DNA
 <213> Homo sapiens

<400> 95
 tttgccctga cccgggcccgg ggctgtagac tagagagggga gagaagaaaa cccaaaagca 60
 atggcctggg actgccggag gctgggtggcg gcggggcgcg caggctgcgc acgggtttac 120
 accaacacgc agctgctgga actggagaag gaattccact ttaataagta cctgtgccgg 180
 ccacgccgcg tcgagatcgc ggccttgctg gacctcaccg aaaggcagggt caaagtctgg 240
 tttcagaacc ggcgcatgaa gcacaagcgg cagacgcagc accgagagcc gccggatggg 300
 gagcctgcct gcccgggagc cctggaggac atctgcgacc ctgccgagga accctgcggc 360
 cagcccgggc ggccctcccg cctcgcgggc ggcgtgggaa gcctgctgtc acccgccgga 420
 ggtggttgcc gggggccc 438

<210> 96
 <211> 474
 <212> DNA
 <213> Homo sapiens

<400> 96
 cccccctaga gtttaattat tcctgagatt tcaactggaag gagtctacca aacggaattt 60
 ttctgtgtga attttaaaag ataaccgagt gcccaatatt ttagaagaag aagaaaggga 120
 gtggattaaa cgctaattca gtaatacctg aatttttagca aaacacataa gtctatgcga 180
 ctgaggggtgg gagaggctcg atttttccag tagacggcca aggagcgtgg gggtcgaaag 240
 gaccgggagg aggaaacagg ttagggaaac tgcaggctga tggcacagag cgtactggtg 300
 aaaaaatcca gctcttctc ggaaaaagg accgggctgt cgagagaacc ctgtaggcta 360
 ggggagaggc ctccggatag ctggagacag gagtgcggcg cgaagaagtt gaggtcggga 420
 aggaaaggta attccttctc cagttccagc agctgcgtgt tgggtgaagc cgtg 474

<210> 97
 <211> 397
 <212> DNA
 <213> Homo sapiens

<400> 97
 tttgccctga cccgggcccgg ggctgtagac tagagagggga gagaagaaaa cccaaaagca 60

atggcctggg	actgccggag	gctggtggcg	gcggggcgcg	caggctgcgc	acggttacac	120
caacacgcag	ctgctggaac	tggagaagga	attccacttt	aataagtacc	tgtgccggcc	180
acgccgcgtc	gagatcgccg	ccttgctgga	cctcaccgaa	aggcaggtca	aagtctggtt	240
tcagaaccgg	cgcataaagc	acaagcggca	gacgcagcac	cgagagccgc	cggatgggga	300
gccttgccct	gcccgggagc	ccttgaggga	catctgcgac	cctgccgagg	aaccgcggg	360
ccagcccggg	cggccccctt	cgcctcgcg	gcgggcg			397

<210> 98
 <211> 447
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(447)
 <223> n = g, a, c or t

<400> 98						
ccccctaga	gattctaatt	tacttcctga	gattatcact	ggaaggagat	ctaccaaaccg	60
gaatttcttc	cgtgtgaatt	ttaacagaga	taaccgagtg	cccatatttt	agaagaagaa	120
gaaagggagt	ggattaaacg	ctaattcagt	aatacctgaa	ttttagcaaa	gacacataag	180
tctatgcgac	tgaggggtgg	agaggctcga	tttttccagt	agacggccaa	ggagcgcggg	240
ggctcgaaagg	accggggagga	ggaaacaggt	tagggaaact	gcaggtcgac	tggcacagag	300
cgtactgggtg	aaaaaatcca	gctcttcctc	ggaaaaaggg	accgggctgt	cgagagaacc	360
ctggtaggct	aggggagagg	cctccggata	gctggagaca	ggagtcggcc	gcgaangaag	420
ttgaggtcgg	gaaggaaagg	tgaatcc				447

<210> 99
 <211> 558
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(558)
 <223> n = g, a, c or t

<400> 99						
aaattggaaa	tagactcact	atagggcgaa	ttggggccctc	tagaatgaca	tgctcgagcg	60
gccagnccaa	ggtgtgatgg	atatctgcag	aattctgccc	ttacgacagt	cagtgaagtat	120
cagacctcag	agctagatcg	tagcggccgc	tttatctatc	taaccactgt	gctgggtntc	180
tgcgccccc	gctagagttt	aattattcct	gagatttcac	tggccaggga	gtctaccaac	240
agggaatttt	tctgtgtgaa	ttttaaaaga	taaccgagtg	cccaatat	tagaagaaga	300
agaaagggag	tggattaaac	gctaattcag	taatacctga	attttagcaa	aacacataag	360
tctatgcgac	tgaggggtgg	agaggctcga	tttttccagt	agacggccaa	ggagcgcggg	420
ggncgaaagg	accggggagga	ggaaacaggt	tagggaaact	gcaggtcgat	ggcacagagc	480
gtactggtga	aaaaatccag	ctcttcctcg	gaaaaaggga	ccggggtgta	agagagaacc	540
ctggnaaggc	cagcggga					558

<210> 100
 <211> 436
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(436)
 <223> n = g, a, c or t

<400> 100						
ccccctaga	gtttaattat	tcttgagatt	tcactggaag	gagtctacca	gacggaattt	60

ttctgtgtga	attttaagaa	gataaccgag	tgcccaatat	tttagaagaa	gaagaaaggg	120
agtggattaa	acgctaattc	agtaatacct	gaatttttagc	aaaacacata	acgtctatgc	180
gactgagggt	gggagaggct	cgattttgtc	cagtacgacg	gccaagggagc	gcgcgggggtc	240
gaaaggaccg	ggaggaggaa	acagggttagg	gaaactgcag	gtcgaatggca	cagagcgtag	300
tggtgaaaaa	atccagctct	acctcggaaa	aaggggaccg	gaccngatcg	agagaaccct	360
gtaggctagg	ggagaggcca	tccggataga	ctggagacag	gagtcggaac	gcgaagaagt	420
acgaggtcgn	ggaagg					436

```

<210> 101
<211> 642
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(642)
<223> n = g, a, c or t

```

<400> 101						
ccccctaga	gtttaattat	tcctgagatt	tcactggaag	gagtctacca	aacggaattt	60
ttctgtgtga	attttaaaag	ataaccgagt	gccaatatt	ttagaagaag	aagaaagggg	120
gtggattaaa	cgctaattca	gtaatacctg	aatttttagca	aaacacataa	gtctatgcga	180
ctgaggggtg	gaggggctcg	atttttccag	tagacggcca	aggagcgcg	gggtcgaaag	240
gaccgggagg	aggaaacagg	tnagggaaac	tgcaggtcga	tggcacagag	cgtactggtg	300
aaaaaatcca	gctcttcctc	ggaaaaaggg	accgggctgt	cgagagaacc	ctgtaggcta	360
ggggagaggc	ctccggatag	ctggagacag	gagtcggccg	cgaagaagtn	gaggtcggga	420
aggaaagcgt	gaaagtccct	ggcacagcca	ccgaaggcaa	agaacggatc	ntttcatnng	480
acaaaaatgg	gacccaggag	catcccaagc	accgggancg	gggcgccccg	gacgcangca	540
gnagcgcaaa	gacagggnga	actcacgaaa	ggcagnacnt	gacgaccca	ttccaaaaag	600
gagagaacaa	ngggnataaa	aaggggaccag	gagaaganca	ag		642

```

<210> 102
<211> 417
<212> DNA
<213> Homo sapiens

```

<400> 102						
ccccctaga	gtttaattat	tcctgagatt	tcactggaag	gagtctacca	aacggaattt	60
ttctgtgtga	attttaaaag	ataaccgagt	gccaatatt	ttagaagaag	aagaaagggg	120
gtggattaaa	cgctaattca	gtaatacctg	aatttttagca	aaacacataa	gtctatgcga	180
ctgaggggtg	gagaggctcg	atttttccag	tagacggcca	aggagcgcg	gggtcgaaag	240
gaccgggagg	aggaaacagg	ttagggaaac	tgcaggtcga	tggcacagag	cgtactggtg	300
aaaaaatcca	gctcttcctc	ggaaaaaggg	accgggctgt	cgagagaacc	ctgtaggcta	360
ggggagaggc	ctccggatag	ctggagacag	gagtcggccg	cgaagaagtt	cgaggtc	417

```

<210> 103
<211> 452
<212> DNA
<213> Homo sapiens

```

<400> 103						
ccccctaga	gtttaattat	tcctgagatt	tcactggaag	gagtctacca	aacggaattt	60
ttctgtgtga	attttaaaag	ataaccgagt	gccaatatt	ttagaagagg	aagaaagggg	120
gtggattaaa	cgctaattca	gtaatacctg	aatttttagca	aaacacgtaa	gtctatgcga	180
ctgaggggtg	gagaggctcg	atttttccag	tagacggcca	aggagcgcg	gggtcgaaag	240
gaccgggagg	aggaaacagg	ttagggaaac	tgcaggtcga	tggcacagag	cgtactggtg	300
aaaaaatcca	gctcttcctc	ggaaaaaggg	accgggctgt	cgagagaacc	ctgtaggcta	360
ggggagaggc	ctccggatag	ctggagacag	gagtcggccg	cgaagaagtt	gaggtcggga	420
aggaaaggtg	aatcctggcg	ccccgagaag	ac			452

<210> 104
 <211> 462
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(462)
 <223> n = g, a, c or t

```

<400> 104
ccccctaga gtttaattat tcctgagatt tcactggaag gagtctacca aacggaattt      60
ttctgtgtga attttaaaag ataaccgagt gcccaatatt ttagaagaag aagaaagggg      120
gtggattaaa cgctaattca gtaatacctg aatttttagca aaacacataa gtctatgcga      180
ctgagggtgg gagaggctcg atttntccag tagacggcca aggagcgcgg gggtcgaaaag      240
gaccgggagg aggaaacagg tagggaaact gcaggtcgat ggcacagagc gtactggtga      300
aaaaatccag ctcttcctcg gaaaaaggga ccgggactgt cgagagaacc ctgnaggcta      360
ggggagaggc ctccggatag ctggagacag gagtcggacc gcgaagcaag tctgaggtcg      420
ggaaggaaaag gtgaatcctg gcgccccgag aagacgtctt ct                        462

```

<210> 105
 <211> 404
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(404)
 <223> n = g, a, c or t

```

<400> 105
ccccctaga gtttaattat tcctgagatt tcactggaag gagtctacca aacggaattt      60
ttctgtgtga attttaaaag ataaccgagt gcccaatatt ttagaagaag aagaaagggg      120
gtggattaaa cgctaattca gtaatacctg aatttttagca aaacacataa gtctatgcga      180
ctgagggtgg gagaggctcg atttttccag tagacggcca aggagcgcgg gggtcgaaaag      240
gaccgggagg aggaaacagg ttagggaaac tgcaggtcga nggcacagag cgtactggtg      300
aaaaaatcca gctcttcctc ggaaaaaggg accgggcatg tcgagagaac cctgganggc      360
taggggagag gcctaccgga tagcnggaga caaggagncg gacg                        404

```

<210> 106
 <211> 526
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(526)
 <223> n = g, a, c or t

```

<400> 106
tttgcctga cccgggccgg ggctgtagac tagagagggg gagaagaaaa cccattgccca      60
gaagacgtct tctcggggcg ccaggattca cctttccttc ccgacctcaa cttcttcgcg      120
gccgactcct gtctccagct atccggaggc ctctccccta gcctacaggg ttctctcgac      180
agcccgggtcc ctttttccga ggaagagctg gatttttttca ccagtacgct ctgtgccatc      240
gacctgcagt ttccctaacc tgtttcctcc tcccggctcct ttcgaccccc gcgctccttg      300
gccgtctact ggaaaaatcg agcctctccc accctcagtc gcatagactt atgtgttttg      360
ctaaaattca ggtattactg aattagcgtt taatccactc cttttcttct tcttctaaaa      420
tattgggcac tcggttatct tttanaaatt tcacacagaa aattccgttt ggtagactcc      480
ttccagtgaa atctcaggaa ttattaactc tagggggggc gcaaga                        526

```

<210> 107
 <211> 563
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(563)
 <223> n = g, a, c or t

```

<400> 107
ccccccctaga gtttaattat tcctgagatt tcaactggaag gaggctacca aacggaattt      60
ttctgtgtga attttaaaaag ataaccgagt gcccaatatt ttagaagaag aagaaaggga      120
gtggattaaa cgctaattca gtaataacctg aatttttagca aaacacataa gtctatgcga      180
ctgaggggtgg gagaggctcg atttttccag tagacggcca aggagcgcgg gggtcgaaaag      240
gaccgggagg aggaaacagg ttagggaaac tgcaggtcga tggcacagag cgtactggtg      300
aaaaaatcca gctcttcctc ggaaaaaggg accgggctgt cgagagaacc ctgtaggcta      360
ggggagaggg ctccggatag ctggagacag gaggcggccg cgaagaagtt gaggtcggga      420
aggaaagggtg aatcctggcg ccccgagaag acgtcttctg gcaatgggtt ttcttctctc      480
cctctctagt ctacagcccc ggcccggttc agggcaaacc ggagaacca gcacactgga      540
gccaccngt gccaccggct tgg                                     563

```

<210> 108
 <211> 475
 <212> DNA
 <213> Homo sapiens

```

<400> 108
tttgcctga cccgggcccgg ggctgtagac tagagagga gagaagaaa cccattgcc      60
gaagacgtct tctcggggcg ccaggattca cctttccttc ccgacctcaa cttcttcg      120
gccgactcct gtctccagct atccggaggc ctctccccta gcctacaggg ttctctcg      180
agcccggtcc ctttttccga ggaagagctg gattttttca ccagtacgct ctgtgccatc      240
gaccgtgcag ttccctaac ctgtttcctc ctcccggctc ttccgacccc cgcgctcctt      300
ggcgtctac tggaaaaatc gagcctctcc caccctcagt cgcatagact tatgtgtttt      360
gctaaaattc aggtattact gaattagcgt ttaatccact ccctttcttc ttcttctaaa      420
atattgggca catcggttat ctttttaaaa ttcacacaga aaaattccgt taggg      475

```

<210> 109
 <211> 545
 <212> DNA
 <213> Homo sapiens

```

<400> 109
ccccccctaga gtttaattat tcctgagatt tcaactggaag gaggctacca aacggaattt      60
ttctgtgtga attttaaaaag ataaccgagt gcccaatatt ttagaagaag aagaaaggga      120
gtggattaaa cgctaattca gtaataacctg aatttttagca aaacacataa gtctatgcga      180
ctgaggggtgg gagaggctcg atttttccag tagacggcca aggagcgcgg gggtcgaaaag      240
gaccgggagg aggaaacagg ttagggaaac tgcaggtcga tggcacagag cgtactggtg      300
aaaaaatcca gctcttcctc ggaaaaaggg accgggctgt cgagagaacc ctgtaggcta      360
ggggagaggg ctccggatag ctggagacag gaggcggccg cgaagaagtt gaggtcggga      420
aggaaagggtg aatcctggcg ccccgagaag acgtcttctg gcaatgggtt ttcttctctc      480
cctctctagt ctacagcccc tggccggggg cagggcaaacc cggagaaacc agcactggtg      540
agcca                                     545

```

<210> 110
 <211> 485
 <212> DNA
 <213> Homo sapiens

```

<400> 110
ccccccctaga gtttaattat tcctgagatt tcaactggaag gaggctacca aacggaattt      60

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ttctgtgtga	attttaaaag	ataaccgagt	gcccataatt	ttagaagaag	aagaaagga	120
gtggattaaa	cgctaattca	gtaataacct	aatttttagca	aaacacataa	gtctatgcga	180
ctgaggggtg	gagaggctcg	atttttccag	tagacggcca	aggagcgcg	gggtcgaaag	240
gaccgggagg	aggaaacagg	ttagggaaac	tgcaggtcga	tggcacagag	cgtactggtg	300
aaaaaatcca	gctcttctc	ggaaaaagg	accgggctgt	cgagagaacc	ctgtaggcta	360
ggggagaggc	ctccgatat	ctggagacag	gagtcggccg	cgaagaagtt	gaggtcggga	420
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gcaaa						485

<210> 111
 <211> 467
 <212> DNA
 <213> Homo sapiens

tttgccctga	cccgggccc	ggctgtagac	tagagagga	gagaaggaaa	cccaaaagca	60
atggcctggg	actgccggag	gctgggtggc	gcggggcgcg	caggctgcgc	acggtttaca	120
ccaacacgca	gctgctggaa	ctggagaagg	aattccactt	taataagtac	ctgtgccggc	180
cacgccgcgt	cgagatcgcg	gccttgctgg	acctcaccga	aaggcaggtc	aaagtctggt	240
ttcagaaccg	gcgcatgaag	cacaagcggc	agacgcagca	ccgagagccg	ccggatgggg	300
agcctgcctg	cccgggagcc	ctggaggaca	tctgcgaccc	tgcgaggaa	cccgcggcca	360
gcccgggcgg	ccccttccgc	ctcgcgggcg	gcgtgggaag	cctgctgtca	cccgccggag	420
gtggtgccgg	gggccttaag	cgcggaaccc	ggccttttagc	cgttcgc		467

<210> 112
 <211> 390
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(390)
 <223> n = g, a, c or t

tttgccctga	cccgggccc	ggctgtagac	tagagagga	gagaagaaaa	cccaaaagca	60
atggcctggg	actgccggag	gctgggtggc	gcggggcgcg	caggctgcgc	acggcttaca	120
ccaacacgca	gctgctggaa	ctggagaagg	aattccactt	taataagtac	ctgtgccggc	180
cacgccgcgt	cgagatcgcg	gccttgctgg	acctcaccga	aaggcaggtc	aaagtctggt	240
ttcagaaccg	gcgcatgaag	cacaagcggc	agacgcagca	ccgagagccg	ccggatgggg	300
agccatgcct	gcccgggagc	ccttgaggga	catctgcgac	ccttgccgag	gaaccgcgcg	360
gccagcccgg	nngcgcccc	atccgcctcg				390

<210> 113
 <211> 723
 <212> DNA
 <213> Homo sapiens

tttgccctga	cccgggccc	gctgtagact	agagagggag	agaagaaaac	ccaaaagcaa	60
tggcctggga	ctgccggagg	ctgggtggcg	cggggcgcg	aggctgcga	cggcttacac	120
caacacgcaa	ttctggaact	ggagaaggaa	ttccacttta	ataagtacct	gtgccggcca	180
cgccgcgctg	agatcgcggc	cttgctggac	ctcaccgaaa	ggcagggtcaa	agtctggttt	240
cagaaccggc	gcatgaagca	caagcggcag	acgcagcacc	gagagccgcc	ggatggggag	300
cctgcctgcc	cgggagccct	ggaggacatc	tgcgacctg	ccgaggaacc	cgcgccagc	360
ccgggcccgc	cctccgcctc	gcgggcccgc	tgggaagcct	gctgtcacc	gccggagggtg	420
gtgccggggg	ccttaagcgc	ggacccccgc	ccttttagccg	ttcgcttaga	gggcgcaggc	480
gcgtcgagtc	ccggctgcgc	gctgcgcggg	gccggcgggc	tggagcccgg	gccattgcc	540
gaagacgtct	tctcggggcg	ccaggattca	cctttccttc	ccgacctcaa	cttcttcgcg	600
gccgactcct	gtctccagct	atccgaggcc	tctcccctag	cctacagggg	ttctctcgac	660

agccccgtcc ctttttccga ggaagagctg gattttttca ccagtacgct ctgtgccatc	720
gac	723

<210> 114
 <211> 552
 <212> DNA
 <213> Homo sapiens

<400> 114	
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atggcctggg actgccggag gctgggtggc gcggggcgcg caggctgcgc acggcttaca	120
ccaacacgca gctctggaac tggagaaggga attccacttt aataagtacc tgtgccggcc	180
acgccgcgtc gagatcgcg ccttgctgga cctcaccgaa aggcaggtca aagtctggtt	240
tcagaaccgg cgcataaagc acaagcggca gacgcagcac cgagagccgc cggatgggga	300
gcctgcctgc ccgggagccc tggaggacat ctgcgacctt gccgaggaac ccgcggccag	360
cccgggcggc ccctccgcct cgcgggcggc gtgggaagcc tgctgtcacc cgcgggaggt	420
ggtgccgggg gccttaagcg cggacccccg gcctttagcc gttcgcttag agggcgaggt	480
cgcgtcgagt cccggctgcg cgtcgcgcg ggccggcggg ctggagcccc ggccattgcc	540
agaagacgtc tt	552

<210> 115
 <211> 375
 <212> DNA
 <213> Homo sapiens

<400> 115	
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ccaacacgca gctgctgga ctggagaagg aattccactt taataagtac ctgtgccggc	180
cacgccgcgt cgagatcgcg gccttgctgg acctcaccga aaggcaggtc aaagtctggt	240
ttcagaaccg gcgcataaag cacaagcggc agacgcagca ccgagagccg ccggatgggg	300
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cagcccgggc ggccc	375

<210> 116
 <211> 562
 <212> DNA
 <213> Homo sapiens

<400> 116	
tttgccctga cccggggccgg ggctgtagac tagagagggg gagaagaaaa cccaaaagca	60
atggcctggg actgccggag gctgggtggc gcggggcgcg caggctgcgc acggcttaca	120
ccaacacgca gctgctgga ctggagaagg aattccactt taataagtac ctgtgccggc	180
cacgccgcgt cgagatcgcg gccttgctgg acctcaccga aaggcaggtc aaagtctggt	240
ttcagaaccg gcgcataaag cacaagcggc agacgcagca ccgagagccg ccggatgggg	300
agcctgcctg cccgggagcc ctggaggaca tctgcgacct tgccgaggaa cccgcggcca	360
gccccggcg cccctccgcc tcgcgggcg cgtgggaagc ctgctgtcac ccgcgggag	420
tggtgccggg ggcccttaagc gcggaccccc ggccctttagc cgttcgctta gagggcgag	480
gcgcgtcgag tcccggctgc gcgctgcgcg gggccggcg gctggagccc gggccattgc	540
cagaagacgt cttctcgggg cg	562

<210> 117
 <211> 666
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(666)
 <223> n = g, a, c or t

```

<400> 117
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gttttacacc aaacacgcag ctgcttgga ctggagaaag gaaattaacc ctttttcctt 180
tcccgaaact tcaaactttc tttcggcggg ccggacttcc ttgtctccag cttatccgga 240
gagcgccttc tccccattag ccctaacaag gggttctctc nggacaggcc cgcgggggtcc 300
ccttttttcc ggagaaagag cttgaatttt tccaaccaag gtacggccca ttcgtttggt 360
tgcccccaat ttcgtagaac cctttgcaca aggttttttc cccctataaa aaccctgtgg 420
tttttccctt tccacctttc cccgcggggg tatccctttt ttcaggaagc cgcgccnaca 480
aaagggcctt cctatttttg gcccggtgta ctcttttagc tgtgggaaaa cagaattcgt 540
cgggaaaggcc ctttcttcca caaaccccc attcnagagg tccggggcaa gatttagaaa 600
ctttattgga ctatgatttg tgttgagggc ccttaaacac aaaattttca agggggatta 660
ttttta 666

```

```

<210> 118
<211> 743
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> modified_base
<222> (1)...(743)
<223> n = g, a, c or t

```

```

<400> 118
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gccgtggggg cctatgaagc tgcggacccc cggctcttag accgtacgct tagagcggcg 180
gacaggcncg tcgaggtccc ggctgcgaac agcgcggagc ccgggcngca tgaagcctcg 240
tgtcncaatt tnccaagaat ggaagggttc ttacccttcn gaggcgcggc ccaaggngta 300
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cgngggccaga nactccgttg ttctaccct anggattaca ncctgagaag accttttcnc 420
acgcctcntt gaggcctcac tgtaaacnng tgggaggggt ngtctccgtt cttncgggga 480
cctaagcggc cccgctgggc gaaccgcggg tttttttaac cctcaccggg agaaagnaga 540
caaaangaca aagggtcttt tgaggaagat tccatcttn cacnaccggt atagattagt 600
taacgggtct cccttgtgct tcgcccacat atttaagtac cggctgtggg cgaagcggtc 660
ttggcccncc aattacacag tccnctttgt gatataacct nctttccact cttacccgng 720
cgggggactc ccactttttt ttc 743

```

```

<210> 119
<211> 544
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> modified_base
<222> (1)...(544)
<223> n = g, a, c or t

```

```

<400> 119
tttgcctga cccgggcccgg ggctgtagac tagagagggga gagaagaaaa cccaaaagca 60
atggcctggg actgccggag gctggtggcg gcggggcgcg caggctgcgc nacggttaca 120
ctcaactacg cagctgctgg aacttgga aggaatttcc actttaataa gtaccttgtg 180
tccgggccac agccggcggg cagagatcng cgggcctttg cctggaccct tcagcccga 240
aagggaagg tcnaagaggc tcatagggtg tccagagacn cgngggcggc caattgaaga 300
ggcaacgaga ggccggccaa ggaacggcag caaccggaa gaaggcccgg ccgcnngcat 360
tgggggggaa gccttngccc ttggccccgg tgggtgaagg ccgctttggg aangggagca 420
tattcctngc ggaaacgcct tgtcncagaa gggtagaaac cccgtgacgg ggccaagggc 480
gcccgggggc cggcgggccc ccctttccgg acccatttcc gggccggggg gccggngca 540
gttg 544

```

<210> 120
 <211> 1520
 <212> DNA
 <213> Homo sapiens

```

<400> 120
gaattccggg ggggggtccc ttccgatacct cctcctgac gcccccccca gcagccccct 60
ccccccaccat tgaaagccat gaattttgaa tttgagaggg agattgggtt tataaacagc 120
cagccgtcgc tcgccgagtg tctgacttcc ttccccgctg tcttgagac atttcaaact 180
tcataaatca aggagtcgac attaatcct cctcctcctc ctttcgagca aaccttcccc 240
agcctccagc ccggcgccctc cacccttcag agaccagga gccaaaagcg agccgaagat 300
gggcctgctc tgccgccgcc accgccgccg ccactccccg ctgccccccc ggcccccgag 360
ttcccttgga tgaaagagaa gaaatccgcc aagaaaccca gccaatccgc cacgtctcct 420
tctccggccg cctccgccgt tccggcctcc ggggtcggat cgcctgcaga tggcctggga 480
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gagatcgagg ccttgctgga cctcaccgaa aggcaggtca aagtctggtt tcagaaccgg 660
cgcataaagc acaagcggca gacgcagcac cgagagccgc cggatgggga gcctgcctgc 720
ccgggagccc tggaggacat ctgcgaccct gccgaggaa cgcgggccag cccgggcggc 780
ccctccgcct cgcgggcggc gtgggaagcc tgctgtcacc cgcggagggt ggtgccgggg 840
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cccggctgcg cgtgcgcggg ggccggcggg ctggagcccc ggccattgcc agaagacgtc 960
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cctttttccg aggaagagct ggattttttt accagtacgc tctgtgccat cgacctgcag 1140
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atctcaggaa taattaaact ctagggggac tttcttaaaa ataactagag ggacctattt 1440
tcctcttttt tatgttttag actgtagatt atttattaaa attctttaat aataggaaaa 1500
ggggaaagta tttattgtac                                     1520

```

<210> 121
 <211> 356
 <212> PRT
 <213> Homo sapiens

```

<400> 121
Met Asn Phe Glu Phe Glu Arg Glu Ile Gly Phe Ile Asn Ser Gln Pro
1      5      10      15
Ser Leu Ala Glu Cys Leu Thr Ser Phe Pro Ala Val Leu Glu Thr Phe
20      25      30
Gln Thr Ser Ser Ile Lys Glu Ser Thr Leu Ile Pro Pro Pro Pro
35      40      45
Phe Glu Gln Thr Phe Pro Ser Leu Gln Pro Gly Ala Ser Thr Leu Gln
50      55      60
Arg Pro Arg Ser Gln Lys Arg Ala Glu Asp Gly Pro Ala Leu Pro Pro
65      70      75      80
Pro Pro Pro Pro Pro Leu Pro Ala Ala Pro Pro Ala Pro Glu Phe Pro
85      90      95
Trp Met Lys Glu Lys Lys Ser Ala Lys Lys Pro Ser Gln Ser Ala Thr
100     105     110
Ser Pro Ser Pro Ala Ala Ser Ala Val Pro Ala Ser Gly Val Gly Ser
115     120     125
Pro Ala Asp Gly Leu Gly Leu Pro Glu Ala Gly Gly Gly Gly Ala Arg
130     135     140
Arg Leu Arg Thr Ala Tyr Thr Asn Thr Gln Leu Leu Glu Leu Glu Lys
145     150     155     160
Glu Phe His Phe Asn Lys Tyr Leu Cys Arg Pro Arg Arg Val Glu Ile
165     170     175

```


Ala	Ala	Leu	Leu	Asp	Leu	Thr	Glu	Arg	Gln	Val	Lys	Val	Trp	Phe	Gln	
			180					185					190			
Asn	Arg	Arg	Met	Lys	His	Lys	Arg	Gln	Thr	Gln	His	Arg	Glu	Pro	Pro	
			195				200					205				
Asp	Gly	Glu	Pro	Ala	Cys	Pro	Gly	Ala	Leu	Glu	Asp	Ile	Cys	Asp	Pro	
			210			215					220					
Ala	Glu	Glu	Pro	Ala	Ala	Ser	Pro	Gly	Gly	Pro	Ser	Ala	Ser	Arg	Ala	
225					230					235					240	
Ala	Trp	Glu	Ala	Cys	Cys	His	Pro	Pro	Glu	Val	Val	Pro	Gly	Ala	Leu	
				245					250					255		
Ser	Ala	Asp	Pro	Arg	Pro	Leu	Ala	Val	Arg	Leu	Glu	Gly	Ala	Gly	Ala	
			260				265						270			
Ser	Ser	Pro	Gly	Cys	Ala	Leu	Arg	Gly	Ala	Gly	Gly	Leu	Glu	Pro	Gly	
		275				280						285				
Pro	Leu	Pro	Glu	Asp	Val	Phe	Ser	Gly	Arg	Gln	Asp	Ser	Pro	Phe	Leu	
		290				295					300					
Pro	Asp	Leu	Asn	Phe	Phe	Ala	Ala	Asp	Ser	Cys	Leu	Gln	Leu	Ser	Gly	
305					310					315					320	
Gly	Leu	Ser	Pro	Ser	Leu	Gln	Gly	Ser	Leu	Asp	Ser	Pro	Val	Pro	Phe	
				325					330					335		
Ser	Glu	Glu	Glu	Leu	Asp	Phe	Phe	Thr	Ser	Thr	Leu	Cys	Ala	Ile	Asp	
			340					345					350			
Leu	Gln	Phe	Pro													
			355													

<210> 122
 <211> 174
 <212> DNA
 <213> Homo sapiens

<400> 122	
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gcggcatcgc caatcagacg ttccccttca ggagtgaagg cgacatagga cggcgtgatg	120
cggttgccct gatcgttggc gatgatctcc acgcggccgc tcgcgatcta gaac	174

<210> 123
 <211> 173
 <212> DNA
 <213> Homo sapiens

<400> 123	
gttctagatc gcgagcggcc gcgtggagat catcgccaac gatcagggca accgcatacac	60
gccgtcctat gtcgccttca ctccctgaagg ggaacgtctg attggcgatg ccgccaagaa	120
ccagctcacc tccaacccccg agaacacggt ctttgacgcc agcggctcat cgg	173

<210> 124
 <211> 174
 <212> DNA
 <213> Homo sapiens

<400> 124	
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gcggcatcgc caatcagacg ttccccttca ggagtgaagg cgacatagga cggcgtgatg	120
cggttgccct gatcgttggc gatgatctcc acgcggccgc tcgcgatcta gaac	174

<210> 125
 <211> 176
 <212> DNA
 <213> Homo sapiens

<400> 125
gttctagatc gcgagcggcc gcgtggagat catcgccaac gatcagtggc aaccgcatca 60
cgccgtccta tgtcgcttc actcctgaag gggaacgtct gattggcgat gccgccaaga 120
accagctcac ctccaaaccc gagaacacgg tctttgacgc caagcggctc atctgg 176

<210> 126
<211> 175
<212> DNA
<213> Homo sapiens

<400> 126
gttctagatc gcgagcggcc gcgtggagat catcgccaac gatcaggggc aaccgcatca 60
cgccgtccta tgtcgcttc actcctgaag gggaacgtct gattggcgat gccgccaaga 120
accagctcac ctccaaaccc gagaacacgg tctttgacgc caagcggctc atcgg 175

<210> 127
<211> 1917
<212> DNA
<213> Homo sapiens

<400> 127
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tactcctgcg tcggcgtgtt caagaacggc cgcgtggaga tcatcgccaa cgatcagggc 120
aaccgcatca cgccgtccta tgtcgcttc actcctgaag gggaacgtct gattggcgat 180
gccgccaaga accagctcac ctccaaaccc gagaacacgg tctttgacgc caagcggctc 240
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gaaaggatgg ttaatgatgc tgagaagttt gctgaggaag acaaaaagct caaggagcgc 1620
attgatacta gaaatgagtt ggaaagctat gcctattctc taaagaatca gattggagat 1680
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gaagaaaaga ttgaatggct ggaaagccac caagatgctg acattgaaga cttcaaagct 1800
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<210> 128
<211> 3925
<212> DNA
<213> Homo sapiens

<400> 128
acagcacaga cagattgacc tattggggtg tttcgcgagt gtgagagggg agcgccgcgg 60

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 <213> Homo sapiens

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Tyr	Val	Ala	Phe	Thr	Pro	Glu	Gly	Glu	Arg	Leu	Ile	Gly	Asp	Ala	Ala
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 Thr Arg Asn Glu Leu Glu Ser Tyr Ala Tyr Ser Leu Lys Asn Gln Ile
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 Thr Met Glu Lys Ala Val Glu Glu Lys Ile Glu Trp Leu Glu Ser His
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 <212> DNA
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 <211> 489
 <212> PRT
 <213> Homo sapiens

<400> 140

Met	Ala	Leu	Leu	Phe	Leu	Leu	Pro	Leu	Val	Met	Gln	Gly	Val	Ser	Arg
1				5					10					15	
Ala	Glu	Met	Gly	Thr	Ala	Asp	Leu	Gly	Pro	Ser	Ser	Val	Pro	Thr	Pro
			20					25					30		
Thr	Asn	Val	Thr	Ile	Glu	Ser	Tyr	Asn	Met	Asn	Pro	Ile	Val	Tyr	Trp
	35						40					45			
Glu	Tyr	Gln	Ile	Met	Pro	Gln	Val	Pro	Val	Phe	Thr	Val	Glu	Val	Lys
	50					55					60				
Asn	Tyr	Gly	Val	Lys	Asn	Ser	Glu	Trp	Ile	Asp	Ala	Cys	Ile	Asn	Ile
65					70					75					80
Ser	His	His	Tyr	Cys	Asn	Ile	Ser	Asp	His	Val	Gly	Asp	Pro	Ser	Asn
				85					90					95	
Ser	Leu	Trp	Val	Arg	Val	Lys	Ala	Arg	Val	Gly	Gln	Lys	Glu	Ser	Ala
	100						105						110		
Tyr	Ala	Lys	Ser	Glu	Glu	Phe	Ala	Val	Cys	Arg	Asp	Gly	Lys	Ile	Gly
	115						120					125			
Pro	Pro	Lys	Leu	Asp	Ile	Arg	Lys	Glu	Glu	Lys	Gln	Ile	Met	Ile	Asp
	130					135						140			
Ile	Phe	His	Pro	Ser	Val	Phe	Val	Asn	Gly	Asp	Glu	Gln	Glu	Val	Asp
145					150					155					160
Tyr	Asp	Pro	Glu	Thr	Thr	Cys	Tyr	Ile	Arg	Val	Tyr	Asn	Val	Tyr	Val
				165					170					175	
Arg	Met	Asn	Gly	Ser	Glu	Ile	Gln	Tyr	Lys	Ile	Leu	Thr	Gln	Lys	Glu
	180						185						190		
Asp	Asp	Cys	Asp	Glu	Ile	Gln	Cys	Gln	Leu	Ala	Ile	Pro	Val	Ser	Ser
	195						200					205			
Leu	Asn	Ser	Gln	Tyr	Cys	Val	Ser	Ala	Glu	Gly	Val	Leu	His	Val	Trp
	210					215					220				
Gly	Val	Thr	Thr	Glu	Lys	Ser	Lys	Glu	Val	Cys	Ile	Thr	Ile	Phe	Asn
225					230					235					240
Ser	Ser	Ile	Lys	Gly	Ser	Leu	Trp	Ile	Pro	Val	Val	Ala	Ala	Leu	Leu
				245					250					255	

Leu Phe Leu Val Leu Ser Leu Val Phe Ile Cys Phe Tyr Ile Lys Lys
 260 265 270
 Ile Asn Pro Leu Lys Glu Lys Ser Ile Ile Leu Pro Lys Ser Leu Ile
 275 280 285
 Ser Val Val Arg Ser Ala Thr Leu Glu Thr Lys Pro Glu Ser Lys Tyr
 290 295 300
 Val Ser Leu Ile Thr Ser Tyr Gln Pro Phe Ser Leu Glu Lys Glu Val
 305 310 315 320
 Val Cys Glu Glu Pro Leu Ser Pro Ala Thr Val Pro Gly Met His Thr
 325 330 335
 Glu Asp Asn Pro Gly Lys Val Glu His Thr Glu Glu Leu Ser Ser Ile
 340 345 350
 Thr Glu Val Val Thr Thr Glu Glu Asn Ile Pro Asp Val Val Pro Gly
 355 360 365
 Ser His Leu Thr Pro Ile Glu Arg Glu Ser Ser Ser Pro Leu Ser Ser
 370 375 380
 Asn Gln Ser Glu Pro Gly Ser Ile Ala Leu Asn Ser Tyr His Ser Arg
 385 390 395 400
 Asn Cys Ser Glu Ser Asp His Ser Arg Asn Gly Phe Asp Thr Asp Ser
 405 410 415
 Ser Cys Leu Glu Ser His Ser Ser Leu Ser Asp Ser Glu Phe Pro Pro
 420 425 430
 Asn Asn Lys Gly Glu Ile Lys Thr Glu Gly Gln Glu Leu Ile Thr Val
 435 440 445
 Ile Lys Ala Pro Thr Ser Phe Gly Tyr Asp Lys Pro His Val Leu Val
 450 455 460
 Asp Leu Leu Val Asp Asp Ser Gly Lys Glu Ser Leu Ile Gly Tyr Arg
 465 470 475 480
 Pro Thr Glu Asp Ser Lys Glu Phe Ser
 485

<210> 141
 <211> 630
 <212> DNA
 <213> Homo sapiens

<400> 141
 ctattgtgct tgcttcatca cgggccatta tcagaatggt ttttagacca tctagaacca 60
 cctgaaccac ttgagaatct ttactgaca gtaaattaca gaacggtggt attacattct 120
 gctgtacaag gtactcaacc tgatcttttc tgccacttat tgtaagtgt ctgattgcc 180
 aagcagcttc ttttgtgtt ccaaagtcct ccttagcaag ctgatgaatt atcataggaa 240
 ttaatccagc atctattaca gcttgaactt gttgctgggt gcctgctgtt atgttggaaa 300
 ggaaccacac tgcttcctta tttatcttct cttttgggtg tgataagaga tttgggaagt 360
 gtgacaggac atcacaattg agaacaacct gggctctgctc gtcggtgcca gtcactatgt 420
 tgccaactgc tctgagggt gctgtttgaa ctttgacttc ctgatggctc agaaggggca 480
 caagaaagg cacaactcct gaattccaat aaccatctgg tatctgttca ttaccttcca 540
 tctgtcaaag ttatgacaga gcccaaaaca agtgtcttac aagaaatgtt tatactctgga 600
 atgggtaata tgaaggacaa cataaaaggc 630

<210> 142
 <211> 660
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(660)
 <223> n = g, a, c or t

<400> 142
 ctattgtgct tgcttcatca cgggccatta tcagaatggt ttttagacca tctagaacca 60

cctgaaccac	ttgagaatct	ttcactgaca	gtaaattaca	gaacggtggt	attacattct	120
gctgtacaag	gtactcaacc	tgatcttttc	tgccacttat	tgtaagttg	ctgattgccc	180
aagcagcttc	tttttgtgtt	ccaaagtccc	ccttagcaag	ctgatgaatt	atcataggaa	240
ttaatccagc	atctattaca	gcttgaactt	gttgctggtt	gcctgctggt	atggtggaaa	300
ggaaccacac	atgcttcctt	atztatcttc	tctttagggt	gtgataagag	atgtgggaag	360
tgtgacagga	catcacaatt	tgaggaacaa	cctgggtctg	actcgtcggg	gccagtcact	420
atgttgccaa	ctgcatctga	gggctgctg	tttgaaactt	tgacttccct	gatggctcag	480
aaggggcaca	agaaagggcn	acaaactcct	ggaatcncaa	taaacaatct	gtatctgttc	540
aataaccctc	ccatcctggt	gcaaagggtan	ctgaacacgg	gaggccccaa	aacagggtgt	600
cctacaagga	aatggtgaac	aaacatggaa	atgggaatag	ganggaccac	cacataaagg	660

<210> 143
 <211> 686
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(686)
 <223> n = g, a, c or t

<400> 143						
ctattgtgct	tgcttcatca	ccggccatta	tcagaatggt	ttttagacca	tctagaacca	60
cctgaaccac	ttgagaatct	ttcactgaca	gtaaattaca	gaacggtggt	attacattct	120
gctgtacgag	gtactcaacc	tgatcttttc	tgccacttat	tgtaagttg	ctgattgccc	180
aagcagcttc	tttttgtgtt	ccaaagtccc	ccttagcaag	ctgatgaatt	atcataggaa	240
ttaatccagc	atctattaca	gcttgaactt	gttgctggtt	gcctgctggt	atggtggaaa	300
ggaaccacac	tgcttcctta	tttatcttct	cttttgggtg	tgataacgag	atgtgggaag	360
tgtgacagga	catcacaatt	gagaacaacc	tgggtctgct	cgtcggtgcc	agtcactatg	420
ttgccaaactg	ctctgagggc	tgctgttttg	aactttgact	tcctgatggc	tcagcaaggg	480
gcacaagaaa	agggcacaaa	cttccttgaa	aatccaataa	accaatctgt	aattctggtt	540
cacatttacc	ttccaattct	tggttcaaag	gtatgacaga	agccccaaaa	cagggtgttct	600
accaagaaat	tgttcacata	atcctgaatg	ggaatantga	cnggacacac	attaaagccg	660
caaaaaccan	acanacaaaa	ccagac				686

<210> 144
 <211> 487
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(487)
 <223> n = g, a, c or t

<400> 144						
ctttatgtgt	cctcatatac	catacagata	taaacattct	tgtagacact	gtttgggctc	60
tgtcatactt	gacagatgga	ggtaatgaac	agatacagat	ggttattgat	tcagagattg	120
tgccctttct	tgatgcccct	tctttgggga	aaanccccaa	actcccacgg	ggagaagcgt	180
ccnaacaaaag	ngtttcccca	caaaacaagc	accacaacgc	ggccgaagga	caccgcagtt	240
ccaacnggaa	aaagaggaga	gcccacaaca	cacgggagca	taatatntga	ggggggggcc	300
aagaaaacac	ccgcaactta	aaangcgcnt	gggggaagagc	cattaggttg	gnncaaccgc	360
cccgggaaaa	gccgcggaaa	agggcccaan	ggaaaaacac	cccaccccan	ccccanaaac	420
acgggggggg	agaatgcatac	acggggcgag	atcaatacca	gatttcaccc	aaaaaacatt	480
cacaacg						487

<210> 145
 <211> 254
 <212> DNA
 <213> Homo sapiens

```

<400> 145
ctattgtgct tgcttcatca ccggccatta tcagaatggt ttttagacca tctagaacca      60
cctgaaccac ttgagaatct ttcactgaca gtaaattaca gaacggtggt attacattct      120
gctggtttta caaggtactc aacctgatct tttctgccac ttattgttaa gttgctgatt      180
gcccaagcag cttctttttg tgttccaaag tcccccttag caaggctgat gaattatcat      240
aggaattaat ccag                                         254

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```

<210> 146
<211> 825
<212> DNA
<213> Homo sapiens

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```

<220>
<221> modified_base
<222> (1)...(825)
<223> n = g, a, c or t

```

```

<400> 146
ctattgtgct tgcttcatca ccggccatta tcagaatggt ttttagacca tctagaanca      60
cctgaaccac ttgagaatct ttcactgaca gtaaattaca gaacggtggt attacattct      120
gctgtacaag gggactcaac tgatcttttc tggcacttat tggtaagttg ctgattggcc      180
aaggcagctt ctttttgtgt tccaaagtcc cccttagcaa gctgatgaat tatcatagga      240
attaatccag catctattac agcttgggac ctggtgcagg gttgacctgc tggataatgt      300
ttgggaagga aacacactgg gttcccttaa tttatcttat ctctataggg agtgataaga      360
gatatatggg aaagttgtta acaggacatt acaatttgat gaacaacctg ggtctgatac      420
gtccncagnt gggcccacnc gcaacgcaaa taagtttttg gcccaaaccc agggggccca      480
cgaaaaagag gacgcagccc acgtgggntt ggagaacccat cttgaaacan taccctcngg      540
aatagagcgt cccaaanagg gggcggaccc aaggaanaaa gggggaccaa agtaccctgg      600
aaatccacac ataaaacccat actgtaatac tcgtgtgcca cgctgttaat accccanttc      660
accaacaatc cactgggggtc nacacaggat nanttgaaaag cacacggaag agagccgcca      720
acaaaccagn ggggggtgcng ttntgccaag caaccacang ggtgcgctga agtagcaata      780
accagganaa ntggggggga cgagcaactt ngtaaagggg gaacg                                         825

```

```

<210> 147
<211> 463
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> modified_base
<222> (1)...(463)
<223> n = g, a, c or t

```

```

<400> 147
ctttatgtgt cctcatatac catacagata taaacattct tgtagacact gtttgggctc      60
tgtcatactt gacagatgga ggtaatgaac agatacagat ggttattgat tcaggagttg      120
tgccctttct tgtgcccctt ctgagccatc aggaagtcaa agttcaaaca gcagccctca      180
gagcagttgg caacatagtg actggcaccg acgagcagac ccaggttggt ctcaattgtg      240
atgtcctgtc acacttccca aatctcttat cacacccaaa agagaagata aataaggaag      300
cagtagtggt tcctttccaa cataacagca ggcaancagc aacaagttca agctgtaata      360
gatgctggat taattcctat gataatttca tcagcmttgc taagngggga catattggaa      420
acacaaaaaa gaagctgcat atggggcaac aatcaggcaa anc                                         463

```

```

<210> 148
<211> 524
<212> DNA
<213> Homo sapiens

```

```

<400> 148
ctttatgtgt cctcatatac catacagata taaacattct tgtagacact gtttgggctc      60
tgtcatactt gacagatgga ggtaatgaac agatacagat ggttattgat tcaggagttg      120

```

tgccctttct	tgtgcccctt	ctgagccatc	aggaagtcaa	agttcaaaca	gcagccctca	180
gagcagttgg	caacatagtg	actggcaccg	acgagcagac	ccagggttgtt	ctcaattgtg	240
atgtcctgtc	acactttcca	aatctcttat	cacacccaaa	agagaagata	aataaggaag	300
cagtgtgggt	cctttccaac	ataacagcag	gcaaccagca	acaagttcaa	gctgtaatag	360
atgctggatt	aattcctatg	ataattcatc	agcttgctaa	gggggacttt	ggaacacaaa	420
aagaagctgc	ttgggcaatc	agcaacttaa	caataagtgg	caagaaaaga	tcagggttgag	480
taccttgtag	agcagaattg	taaataccac	cgttctgtaa	at		524

<210> 149
 <211> 833
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(833)
 <223> n = g, a, c or t

<400> 149						
ctttatgtgt	cctcatatac	catacagata	taaacattct	tgtagacact	gtttgggctc	60
tgtcatactt	gacagatgga	ggtaatgaac	agatacagat	ggttattgat	tcaggagttg	120
tgccctttct	tgtgcccctt	ctgagccatc	aggaagtcaa	agttcaaaca	gcagccctca	180
gagcagttgg	caacatagtg	actggcaccg	acgagcagac	ccagggttgtt	ctcaattgtg	240
atgtcctgtc	acactttcca	aatctcttat	cacacccaaa	agagaagata	aataaggaag	300
cagtgtgggt	cctttccaac	ataacagcag	gcaaccagca	acaagttcaa	gctgtaatag	360
atgctggatt	aattcctatg	ataattcatc	agcttgctaa	gaggggactt	tggaacacaa	420
aaagaagctg	cttgggcaat	cagcaaactt	aacaaataaa	gtggcagaaa	agatcagggt	480
gagtacctcg	tacagcagaa	tgtaatacca	ccgatactgt	taacttntac	ctgtcagtga	540
acagatcctc	aagtggatca	nagagggacc	tagaatgggt	cctaaaaaaaa	aaacaatntc	600
tggataaatt	ngggccggga	ggacatgaaa	agcaaaggca	acaaatcaag	gacacggaac	660
gagaaaccaa	gcanacacat	aggaagacca	cccngtgagc	caaccgggga	ctatgaggag	720
gggcntgccc	tccatggana	caggagcagc	gacccaagnc	caaaaaaagg	ggcgaataca	780
gtagaacaag	agnagnaaca	acaccatata	agagagaana	acaccgacag	cca	833

<210> 150
 <211> 557
 <212> DNA
 <213> Homo sapiens

<400> 150						
ctattgtgct	tgcttcatca	ccggccatta	tcagaatggt	tttttagacca	tctagaacca	60
cctgaaccac	ttgagaatct	ttcactgaca	gtaaattaca	gaacggtggt	attacattct	120
gctgtacaag	gtactcaacc	tgatcttttc	tgccacttat	tgtaagttg	ctgattgccc	180
aagcagcttc	tttttgtggt	ccaaagtccc	ccttagcaag	ctgatgaatt	atcataggaa	240
ttaatccagc	atctattaca	gcttgaactt	gttgctgggt	gcctgctgtt	atgttggaag	300
ggaaccacac	tgcttcctta	tttatcttct	cttttgggtg	tgataagaga	tttgggaagt	360
gtgacaggac	atcacaattg	agaacaacct	gggtctgctc	gtcggtgcca	gtcactatgt	420
tgccaactgc	tctgagggct	gctgtttgaa	ctttgacttc	ctgatggctc	agaaggggca	480
caagaaaggg	cacaactcct	gaatcaataa	ccatctgtat	ctgttcatta	cctccatctg	540
tcaagtatga	cagagcc					557

<210> 151
 <211> 617
 <212> DNA
 <213> Homo sapiens

<400> 151						
ctattgtgct	tgcttcatca	ccggccatta	tcagaatggt	tttttagacca	tctagaacca	60
cctgaaccac	ttgagaatct	ttcactgaca	gtaaattaca	gaacggtggt	attacattct	120
gctgtacaag	gtactcaacc	tgatcttttc	taccacttat	tgtaagttg	ctgattgccc	180
aagcagcttc	tttttgtggt	ccaaagtccc	ccttagcaag	ctgatgaatt	atcataggaa	240

ttaatccagc	atctattaca	gcttgaactt	gttgctgggt	gcctgctggt	atgttgga	300
ggaaccacac	tgcttcctta	tttatcttct	cttttgggtg	tgataagaga	tttgggaagt	360
gtgacaggac	atcacaattg	agaacaacct	gggtctgctc	gtcggtgcca	gtcactatgt	420
tgccaactgc	tctgagggct	gctgtttgaa	ctttgacttc	ctgatggctc	agaaggggca	480
caagaaagg	cacaactcct	gaatcaataa	ccatctgtat	ctgttcatta	cctccatctg	540
tcaagtatga	cagaagccca	aacagctgtc	tacaagaatg	tttatatctg	tatgggtatat	600
tgaaggacac	cataaag					617

<210> 152
 <211> 624
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(624)
 <223> n = g, a, c or t

<400> 152						
ctattgtgct	tggcttcac	accggggccat	tatcagaatg	tttttttagac	catctagaac	60
cacctgaacc	acttgagaat	ctttcactga	cagtaaatta	cagaacgggtg	gtattacatt	120
ctgctgtaca	aggtactcaa	cctgatcttt	tctgccactt	attgttaagt	tgttgattgc	180
ccaagcagct	tctttttgtg	ttccaaagtc	ccccttagca	agctgatgaa	ttatcatagg	240
aattaatcca	gcacttatta	cagcttgaac	ttgggttgctg	gttgccctgct	gttatgttgg	300
aaaggaacca	cactgcttcc	ttatttatct	tctcttttgg	gtgtgataag	agatttgagg	360
agtgtgacag	gacatcacaa	ttgagaacaa	ctgggtctgc	tcgtcgggtgc	cagtcactat	420
gttgccaact	gctctgangg	ctgctgtttg	aactttgact	tcctgatggc	tcaaaggggc	480
acaagaaagg	gcacaactcc	tgaatcaata	accatctgta	tctgtgtcat	tacctccatc	540
tgtcaagtat	gacagagccc	aaacagtgtc	tacacagcaa	tgttctatat	ctcgtatggn	600
gatatgaggg	acacctnaaa	gccg				624

<210> 153
 <211> 2245
 <212> DNA
 <213> Homo sapiens

<400> 153						
aattcgtgg	tccagaatcg	atagggctcc	aagattcgcc	gccgccgccg	ccgcagccgc	60
aggagtagcc	gccgccggag	ccgcgcgcag	catggccgag	aaccccagct	tggagaacca	120
ccgcatcaag	agcttcaaga	acaagggccg	cgatgtggaa	acaatgcgaa	gacatagaaa	180
tgaagtgaca	gtggaactgc	ggaagaacaa	aagagatgaa	cacttattga	aaaagagaaa	240
tgttcccca	gaagaaagtc	tagaagattc	agatgttgat	gctgatttta	aagcacaaaa	300
tgtaacccta	gaagctatat	tgcagaatgc	cacaagtgat	aacccagtg	tccaattgag	360
tgtgtgccag	gcagcaagaa	aactgttata	cagtgaccag	aatccaccga	ttgatgactt	420
aataaaaatct	gggattttac	caattctagt	caaattgtcta	gaaaggggatg	ataatccttc	480
attacagttt	gaagctgctt	gggcattaac	taacatagca	tcaggaactt	ctgcacagac	540
tcaagctgtt	gtgcagtcta	atgcagtacc	tctttttctg	agacttcttc	gttcaccaca	600
tcagaatgtt	tgtgaacaag	cagtatgggc	tttgggaaac	attatagggtg	atggctcctca	660
atgtagagat	tatgtcatat	cactgggag	tgtcaaacct	cttctgtcct	tcacagtc	720
ctccatcccc	atcaccttcc	ttcggaacgt	cacatgggtc	attgtcaatc	tctgcaggaa	780
taaggatccc	ccaccgccta	tggagacagt	tcaggagatt	ttgccagctt	tatgtgtcct	840
catataccat	acagatataa	acattcttgt	agacactgtt	tgggctctgt	catacttgac	900
agatggagg	aatgaacaga	tacagatggt	tattgattca	ggagttgtgc	cctttcttgt	960
gccccttctg	agccatcagg	aagtcaaa	tcaaacagca	gccctcagag	cagttggcaa	1020
catagtga	ggcaccgacg	agcagaccca	gggtgttctc	aattgtgatg	tcctgtcaca	1080
cttcccaaat	ctcttatcac	acccaaaaga	gaagataaat	aaggaagcag	tgtgggtcct	1140
ttccaacata	acagcaggca	accagcaaca	agttcaagct	gtaatagatg	ctggattaat	1200
tcctatgata	attcatcagc	ttgctaaggg	ggactttgga	acacaaaaag	aagctgcttg	1260
ggcaatcagc	aacttaacaa	taagtggcag	aaaagatcag	gttgagtacc	ttgtacagca	1320
gaatgtaata	ccaccgttct	gtaatttact	gtcagtga	gattctcaag	tggttcaggt	1380
ggttctagat	ggtctaaaaa	acattctgat	aatggccggt	gatgaagcaa	gcacaatagc	1440

tgaaataata	gaggaatgtg	gagggtttgga	gaaaattgaa	gttttacagc	aacatgaaaa	1500
tgaagacata	tataaattag	catttgaaat	catagatcag	tatttctctg	gtgatgatat	1560
tgatgaagat	ccctgcctca	ttcctgaagc	aacacaagga	ggtacctaca	atthttgatcc	1620
aacagccaac	cttcaaacaa	aagaatttaa	tttttaaatt	cagttgagtg	cagcatcttt	1680
cccacattca	atatgaagca	ccaccagatg	gctaccaa	gataagaaca	acagcaacaa	1740
aagggtccaa	aacacacatg	cctctttgtt	ttgatgcttc	taaagaaagc	catgtctcag	1800
tcactttgca	gttgccaaaa	gtcactatca	catggactgt	aaatgcatat	gcatgatttc	1860
ctaaactggt	ttagaactct	ccttaacaat	ctcaactacc	ctatttttcc	ctgttccctg	1920
gtgccacagg	ctgacaactg	cagtctccag	tttagaataa	atattccata	gtggtgacat	1980
gtcagctgcc	cactgatact	cctttggaaa	atggtgctgt	gtggatcaag	acactttggt	2040
atgatgcata	tacaagttgg	aagactaaag	aggtgcaatg	tgatctgagc	ctccatcatt	2100
gtcctccaca	aacatatttt	catattcttt	atgtggaaga	atagatttta	aagtacaagc	2160
caaagtattt	tcattgggtg	aactgacaca	aaaaaaagta	acttaaaaaac	aagaaacttg	2220
gttattgaat	aaacagataa	gtttt				2245

<210> 154
 <211> 521
 <212> PRT
 <213> Homo sapiens

<400> 154

Met	Ala	Glu	Asn	Pro	Ser	Leu	Glu	Asn	His	Arg	Ile	Lys	Ser	Phe	Lys
1				5					10					15	
Asn	Lys	Gly	Arg	Asp	Val	Glu	Thr	Met	Arg	Arg	His	Arg	Asn	Glu	Val
			20					25					30		
Thr	Val	Glu	Leu	Arg	Lys	Asn	Lys	Arg	Asp	Glu	His	Leu	Leu	Lys	Lys
		35					40					45			
Arg	Asn	Val	Pro	Gln	Glu	Glu	Ser	Leu	Glu	Asp	Ser	Asp	Val	Asp	Ala
	50					55				60					
Asp	Phe	Lys	Ala	Gln	Asn	Val	Thr	Leu	Glu	Ala	Ile	Leu	Gln	Asn	Ala
65					70					75				80	
Thr	Ser	Asp	Asn	Pro	Val	Val	Gln	Leu	Ser	Ala	Val	Gln	Ala	Ala	Arg
			85						90					95	
Lys	Leu	Leu	Ser	Ser	Asp	Gln	Asn	Pro	Pro	Ile	Asp	Asp	Leu	Ile	Lys
			100					105					110		
Ser	Gly	Ile	Leu	Pro	Ile	Leu	Val	Lys	Cys	Leu	Glu	Arg	Asp	Asp	Asn
		115					120					125			
Pro	Ser	Leu	Gln	Phe	Glu	Ala	Ala	Trp	Ala	Leu	Thr	Asn	Ile	Ala	Ser
		130				135					140				
Gly	Thr	Ser	Ala	Gln	Thr	Gln	Ala	Val	Val	Gln	Ser	Asn	Ala	Val	Pro
145					150					155					160
Leu	Phe	Leu	Arg	Leu	Leu	Arg	Ser	Pro	His	Gln	Asn	Val	Cys	Glu	Gln
			165						170					175	
Ala	Val	Trp	Ala	Leu	Gly	Asn	Ile	Ile	Gly	Asp	Gly	Pro	Gln	Cys	Arg
			180						185				190		
Asp	Tyr	Val	Ile	Ser	Leu	Gly	Val	Val	Lys	Pro	Leu	Leu	Ser	Phe	Ile
		195					200					205			
Ser	Pro	Ser	Ile	Pro	Ile	Thr	Phe	Leu	Arg	Asn	Val	Thr	Trp	Val	Ile
		210				215					220				
Val	Asn	Leu	Cys	Arg	Asn	Lys	Asp	Pro	Pro	Pro	Pro	Met	Glu	Thr	Val
225					230					235					240
Gln	Glu	Ile	Leu	Pro	Ala	Leu	Cys	Val	Leu	Ile	Tyr	His	Thr	Asp	Ile
			245						250					255	
Asn	Ile	Leu	Val	Asp	Thr	Val	Trp	Ala	Leu	Ser	Tyr	Leu	Thr	Asp	Gly
			260					265					270		
Gly	Asn	Glu	Gln	Ile	Gln	Met	Val	Ile	Asp	Ser	Gly	Val	Val	Pro	Phe
		275				280						285			
Leu	Val	Pro	Leu	Leu	Ser	His	Gln	Glu	Val	Lys	Val	Gln	Thr	Ala	Ala
		290				295					300				
Leu	Arg	Ala	Val	Gly	Asn	Ile	Val	Thr	Gly	Thr	Asp	Glu	Gln	Thr	Gln
305				310						315					320

Val	Val	Leu	Asn	Cys	Asp	Val	Leu	Ser	His	Phe	Pro	Asn	Leu	Leu	Ser
			325						330					335	
His	Pro	Lys	Glu	Lys	Ile	Asn	Lys	Glu	Ala	Val	Trp	Phe	Leu	Ser	Asn
			340					345					350		
Ile	Thr	Ala	Gly	Asn	Gln	Gln	Gln	Val	Gln	Ala	Val	Ile	Asp	Ala	Gly
		355					360					365			
Leu	Ile	Pro	Met	Ile	Ile	His	Gln	Leu	Ala	Lys	Gly	Asp	Phe	Gly	Thr
	370					375					380				
Gln	Lys	Glu	Ala	Ala	Trp	Ala	Ile	Ser	Asn	Leu	Thr	Ile	Ser	Gly	Arg
385					390				395						400
Lys	Asp	Gln	Val	Glu	Tyr	Leu	Val	Gln	Gln	Asn	Val	Ile	Pro	Pro	Phe
			405					410						415	
Cys	Asn	Leu	Leu	Ser	Val	Lys	Asp	Ser	Gln	Val	Val	Gln	Val	Val	Leu
		420						425					430		
Asp	Gly	Leu	Lys	Asn	Ile	Leu	Ile	Met	Ala	Gly	Asp	Glu	Ala	Ser	Thr
	435						440					445			
Ile	Ala	Glu	Ile	Ile	Glu	Glu	Cys	Gly	Gly	Leu	Glu	Lys	Ile	Glu	Val
	450					455					460				
Leu	Gln	Gln	His	Glu	Asn	Glu	Asp	Ile	Tyr	Lys	Leu	Ala	Phe	Glu	Ile
465					470				475						480
Ile	Asp	Gln	Tyr	Phe	Ser	Gly	Asp	Asp	Ile	Asp	Glu	Asp	Pro	Cys	Leu
			485					490						495	
Ile	Pro	Glu	Ala	Thr	Gln	Gly	Gly	Thr	Tyr	Asn	Phe	Asp	Pro	Thr	Ala
		500						505					510		
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 <213> Homo sapiens

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 <223> n = g, a, c or t

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agggaggaag	ggcgtaacaa	tctgccacct	acttcagggt	gccaagcact	gttatcaaca										120
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tacgttcacc	tagagtccca	nttattctag	gaaaccacag	gagtttccaa	aacaggggtg										300
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ttataaagta	ngcctccagg	ggggaaaatc	aaaaccattc	cacgaaaaga	aagggtngaa										420
cattctggag	agcattgaag	gatctttgcg	caaagaaatt	ccttgggaaa	aattttaccc										480
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tgaagcgca															549

<210> 156
 <211> 323
 <212> DNA
 <213> Homo sapiens

<400> 156															
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ggttatcaac	cagttattcc	acgtttttat	tcccctgggt	tggaaatttac	tggaaaaagg										180
gggccaagg	ggttaaattg	gagtattcac	acttttatac	agacgagggg	aacaggcctc										240
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aaagggaatt	ttccaaaacc	agg													323

<210> 157
 <211> 418
 <212> DNA
 <213> Homo sapiens

<400> 157
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 tattccactt tattccctgg tgattatgaa aggcaggtat tgatattcac acttaacaga 180
 cgaggaaaca gcctcaggga gatcaagctt acttgaccca gtctctctcc tagttccata 240
 tcagaaccaa gattcaaaca ggtttggttt agaaaatcta ggatttttca gccataccaa 300
 aataaagtag cctcaggga tcaaaacatt cacgaaagaa ggtgacttct gaactgagtc 360
 ttgcaagaat tctggaatt aacctggcag ttgtatcagg ggtggttaagg ggacggaa 418

<210> 158
 <211> 366
 <212> DNA
 <213> Homo sapiens

<400> 158
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 tcctccctcc ccaaacccca aggaactctc actccttgctc aagctgttcc gtccccttac 180
 caccctgat acaactgcca ggtaatttc cagaattctt gcaagactca gttcagaagt 240
 caccttcttt cgggtgaatgt tttgattccc tgaggctact ttatttttgt atggctgaaa 300
 aatcctagat tttctaaaca aaacctgttt gaatcttggt tctgatatgg actaggagag 360
 agactg 366

<210> 159
 <211> 281
 <212> DNA
 <213> Homo sapiens

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 tattccactt tattccctgg tgattatgaa aggcaggtat tgatatttca cacttaacag 180
 acgaggaaac agccttcagg gagataagct tacttgaccc agtctctctt cctagtccat 240
 atcagaacca agattcaaac aggtttggtt tagaaaatct a 281

<210> 160
 <211> 361
 <212> DNA
 <213> Homo sapiens

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 ctctccctc ccaaacccca aaggaactct cactcttgct caagctgttc cgtcccctta 180
 ccaccctga tacaactgcc aggttaattt ccagaattct tgcaagactc agttcagaag 240
 tcacettctt tcgtgaatgt tttgattccc tgaggctact ttatttttgt atggctgaaa 300
 aatcctagat tttctaaaca aaacctgttt gaatcttggt tctgatatgg actaggagag 360
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<210> 161
 <211> 407
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(407)
 <223> n = g, a, c or t

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 cctcctccct ccccaaacc ccaagggaact ctactcttg gctcaaggct gttccggtcg 180
 nccttaccac ccctgataca actgccaggt taatttccag aattcttgca agactcagtt 240
 cagaagtcac cttctttcgt gaatgttttg attccctgag gctactttat tttggtatgg 300
 ctgaaaaatc ctagattttc taaacaaaac ctgtttgaat cttggttctg atatggacta 360
 ggagagagac tgggtcaagt aagcttatct ccctgaggct gtttcct 407

<210> 162
 <211> 516
 <212> DNA
 <213> Homo sapiens

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 tattcccact ttattccctg gtgattatga aaggcaggta ttgatattca cacttaacag 180
 acgaggaaac agcctcaggg agataagctt acttgaccca gtctctctcc tagtccatat 240
 cagaaccaag attcaaacag gttttgttta gaaaatctag gatttttcag ccataccaaa 300
 ataaagtagc ctcagggaat caaaacattc acgaaagaag gtgacttctg aactgagtct 360
 tgcaagaatt ctggaaatta acctggcagt tgtatcagggt gtggtaagggt gacggaacag 420
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<210> 163
 <211> 3502
 <212> DNA
 <213> Homo sapiens

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 ttgccctgag acagcagaat gtggaaagac tctcggagct ggtgcaggct gtgtcggatc 240
 ccagctctcc tcaatacgga aaatacctga cctagagaa tgtggctgat ctggtgaggc 300
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 gccattctgt gatcacacag gaatttctga cttgctggct gagcatccga caagcagagc 420
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tggccagttt acttgtctgc ctctctttcc aagaccgttg gtgcctagag gactagaatc 3420
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atgtctgcta caccgaaaca aa 3502

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<210> 164
<211> 563
<212> PRT
<213> Homo sapiens

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          20          25          30
Pro Gly Trp Val Ser Leu Gly Arg Ala Asp Pro Glu Glu Glu Leu Ser
          35          40          45
Leu Thr Phe Ala Leu Arg Gln Asn Val Glu Arg Leu Ser Glu Leu
          50          55          60
Val Gln Ala Val Ser Asp Pro Ser Ser Pro Gln Tyr Gly Lys Tyr Leu
65          70          75          80
Thr Leu Glu Asn Val Ala Asp Leu Val Arg Pro Ser Pro Leu Thr Leu
          85          90          95
His Thr Val Gln Lys Trp Leu Leu Ala Ala Gly Ala Gln Lys Cys His
          100          105          110
Ser Val Ile Thr Gln Asp Phe Leu Thr Cys Trp Leu Ser Ile Arg Gln
          115          120          125
Ala Glu Leu Leu Leu Pro Gly Ala Glu Phe His His Tyr Val Gly Gly
          130          135          140
Pro Thr Glu Thr His Val Val Arg Ser Pro His Pro Tyr Gln Leu Pro
145          150          155          160

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Gln Ala Leu Ala Pro His Val Asp Phe Val Gly Gly Leu His Arg Phe
 165 170 175
 Pro Pro Thr Ser Ser Leu Arg Gln Arg Pro Glu Pro Gln Val Thr Gly
 180 185 190
 Thr Val Gly Leu His Leu Gly Val Thr Pro Ser Val Ile Arg Lys Arg
 195 200 205
 Tyr Asn Leu Thr Ser Gln Asp Val Gly Ser Gly Thr Ser Asn Asn Ser
 210 215 220
 Gln Ala Cys Ala Gln Phe Leu Glu Gln Tyr Phe His Asp Ser Asp Leu
 225 230 235 240
 Ala Gln Phe Met Arg Leu Phe Gly Gly Asn Phe Ala His Gln Ala Ser
 245 250 255
 Val Ala Arg Val Val Gly Gln Gln Gly Arg Gly Arg Ala Gly Ile Glu
 260 265 270
 Ala Ser Leu Asp Val Gln Tyr Leu Met Ser Ala Gly Ala Asn Ile Ser
 275 280 285
 Thr Trp Val Tyr Ser Ser Pro Gly Arg His Glu Gly Gln Glu Pro Phe
 290 295 300
 Leu Gln Trp Leu Met Leu Leu Ser Asn Glu Ser Ala Leu Pro His Val
 305 310 315 320
 His Thr Val Ser Tyr Gly Asp Asp Glu Asp Ser Leu Ser Ser Ala Tyr
 325 330 335
 Ile Gln Arg Val Asn Thr Glu Leu Met Lys Ala Ala Arg Gly Leu
 340 345 350
 Thr Leu Leu Phe Ala Ser Gly Asp Ser Gly Ala Gly Cys Trp Ser Val
 355 360 365
 Ser Gly Arg His Gln Phe Arg Pro Thr Phe Pro Ala Ser Ser Pro Tyr
 370 375 380
 Val Thr Thr Val Gly Gly Thr Ser Phe Gln Glu Pro Phe Leu Ile Thr
 385 390 395 400
 Asn Glu Ile Val Asp Tyr Ile Ser Gly Gly Phe Ser Asn Val Phe
 405 410 415
 Pro Arg Pro Ser Tyr Gln Glu Glu Ala Val Thr Lys Phe Leu Ser Ser
 420 425 430
 Ser Pro His Leu Pro Pro Ser Ser Tyr Phe Asn Ala Ser Gly Arg Ala
 435 440 445
 Tyr Pro Asp Val Ala Ala Leu Ser Asp Gly Tyr Trp Val Val Ser Asn
 450 455 460
 Arg Val Pro Ile Pro Trp Val Ser Gly Thr Ser Ala Ser Thr Pro Val
 465 470 475 480
 Phe Gly Gly Ile Leu Ser Leu Ile Asn Glu His Arg Ile Leu Ser Gly
 485 490 495
 Arg Pro Pro Leu Gly Phe Leu Asn Pro Arg Leu Tyr Gln Gln His Gly
 500 505 510
 Ala Gly Leu Phe Asp Val Thr Arg Gly Cys His Glu Ser Cys Leu Asp
 515 520 525
 Glu Glu Val Glu Gly Gln Gly Phe Cys Ser Gly Pro Gly Trp Asp Pro
 530 535 540
 Val Thr Gly Trp Gly Thr Pro Asn Phe Pro Ala Leu Leu Lys Thr Leu
 545 550 555 560
 Leu Asn Pro

<210> 165
 <211> 602
 <212> DNA
 <213> Homo sapiens

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 caccaaaatc actcaactca ggagccacaa atagtccagc aatttcattt ccctcaacgc 180

tatttttagtc	tcaaaggaaa	ccatgtaaat	ttcatcaaga	gaagggtcaaa	ggggatatat	240
cgccactgaa	aatgtttaca	cagtgaccat	gagttacaca	tttacttaga	gaaacttaac	300
ttaataaaga	atctgtagag	tgtgttggct	tggaaaacac	acacacaaaag	aagatacctc	360
acgcttagta	tgttctgctt	tctgaacagc	caccactggg	aaccagtggt	cctctgtggg	420
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cctaaagttc	gtctttcgct	tggctcagga	caaagcgggtg	taacgagtca	aagtctctgc	540
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gt						602

<210> 166
 <211> 105
 <212> DNA
 <213> Homo sapiens

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<210> 167
 <211> 105
 <212> DNA
 <213> Homo sapiens

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<210> 168
 <211> 105
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(105)
 <223> n = g, a, c or t

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<210> 169
 <211> 4779
 <212> DNA
 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

<400> 172
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 35 40 45
 Pro Leu Leu Asp Val Asp Glu Lys Thr Gly Asn Ser Glu Ser Lys Lys
 50 55 60
 Lys Pro Cys Ser Glu Thr Ser Gln Ile Glu Asp Thr Pro Ser Ser Lys
 65 70 75 80
 Pro Thr Leu Leu Ala Asn Gly Gly His Gly Val Glu Gly Ser Asp Thr
 85 90 95
 Thr Gly Ser Pro Thr Glu Phe Leu Glu Glu Lys Met Ala Tyr Gln Glu
 100 105 110
 Tyr Pro Asn Ser Gln Asn Trp Pro Glu Asp Thr Asn Phe Cys Phe Gln
 115 120 125
 Pro Glu Gln Val Val Asp Pro Ile Gln Thr Asp Pro Phe Lys Met Tyr
 130 135 140
 His Asp Asp Asp Leu Ala Asp Leu Val Phe Pro Ser Ser Ala Thr Ala
 145 150 155 160
 Asp Thr Ser Ile Phe Ala Gly Gln Asn Asp Pro Leu Lys Asp Ser Tyr
 165 170 175
 Gly Met Ser Pro Cys Asn Thr Ala Val Val Pro Gln Gly Trp Ser Val
 180 185 190
 Glu Ala Leu Asn Ser Pro His Ser Glu Ser Phe Val Ser Pro Glu Ala
 195 200 205
 Val Ala Glu Pro Pro Gln Pro Thr Ala Val Pro Leu Glu Leu Ala Lys
 210 215 220
 Glu Ile Glu Met Ala Ser Glu Glu Arg Pro Pro Ala Gln Ala Leu Glu
 225 230 235 240
 Ile Met Met Gly Leu Lys Thr Thr Asp Met Ala Pro Ser Lys Glu Thr
 245 250 255
 Glu Met Ala Leu Ala Lys Asp Met Ala Leu Ala Thr Lys Thr Glu Val
 260 265 270
 Ala Leu Ala Lys Asp Met Glu Ser Pro Thr Lys Leu Asp Val Thr Leu
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 Ala Lys Asp Met Gln Pro Ser Met Glu Ser Asp Met Ala Leu Val Lys
 290 295 300
 Asp Met Glu Leu Pro Thr Glu Lys Glu Val Ala Leu Val Lys Asp Val
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 Arg Trp Pro Thr Glu Thr Asp Val Ser Ser Ala Lys Asn Val Val Leu
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 Pro Thr Glu Thr Glu Val Ala Pro Ala Lys Asp Val Thr Leu Leu Lys
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 Glu Thr Glu Arg Ala Ser Pro Ile Lys Met Asp Leu Ala Pro Ser Lys
 355 360 365
 Asp Met Gly Pro Pro Lys Glu Asn Lys Lys Glu Thr Glu Arg Ala Ser
 370 375 380
 Pro Ile Lys Met Asp Leu Ala Pro Ser Lys Asp Met Gly Pro Pro Lys
 385 390 395 400
 Glu Asn Lys Ile Val Pro Ala Lys Asp Leu Val Leu Leu Ser Glu Ile
 405 410 415
 Glu Val Ala Gln Ala Asn Asp Ile Ile Ser Ser Thr Glu Ile Ser Ser
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Ala	Glu	Lys	Val	Ala	Leu	Ser	Ser	Glu	Thr	Glu	Val	Ala	Leu	Ala	Arg
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Asp	Met	Thr	Leu	Pro	Pro	Glu	Thr	Asn	Val	Ile	Leu	Thr	Lys	Asp	Lys
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Ala	Leu	Pro	Leu	Glu	Ala	Glu	Val	Ala	Pro	Val	Lys	Asp	Met	Ala	Gln
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Leu	Pro	Glu	Thr	Glu	Ile	Ala	Pro	Ala	Lys	Asp	Val	Ala	Pro	Ser	Thr
				485					490						495
Val	Lys	Glu	Val	Gly	Leu	Leu	Lys	Asp	Met	Ser	Pro	Leu	Ser	Glu	Thr
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Glu	Met	Ala	Leu	Gly	Lys	Asp	Val	Thr	Pro	Pro	Pro	Glu	Thr	Glu	Val
	515						520					525			
Val	Leu	Ile	Lys	Asn	Val	Cys	Leu	Pro	Pro	Glu	Met	Glu	Val	Ala	Leu
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Thr	Glu	Asp	Gln	Val	Pro	Ala	Leu	Lys	Thr	Glu	Ala	Pro	Leu	Ala	Lys
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Asp	Gly	Val	Leu	Thr	Leu	Ala	Asn	Asn	Val	Thr	Pro	Ala	Lys	Asp	Val
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Pro	Pro	Leu	Ser	Glu	Thr	Glu	Ala	Thr	Pro	Val	Pro	Ile	Lys	Asp	Met
			580					585					590		
Glu	Ile	Ala	Gln	Thr	Gln	Lys	Gly	Ile	Ser	Glu	Asp	Ser	His	Leu	Glu
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Ser	Leu	Gln	Asp	Val	Gly	Gln	Ser	Ala	Ala	Pro	Thr	Phe	Met	Ile	Ser
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Glu	Asp	Ser	Val	Leu	Glu	Lys	Leu	Gly	Glu	Arg	Lys	Pro	Cys	Asn	Ser
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Gln	Pro	Ser	Glu	Leu	Ser	Ser	Glu	Thr	Ser	Gly	Ile	Ala	Arg	Pro	Glu
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Glu	Gly	Arg	Pro	Val	Val	Ser	Gly	Thr	Gly	Asn	Asp	Ile	Thr	Thr	Pro
	675						680					685			
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Ala	Thr	Thr	Gln	Pro	Ala	Lys	Thr	Ser	Thr	Ser	Lys	Ala	Lys	Thr	Gln
705					710					715					720
Pro	Thr	Ser	Leu	Pro	Lys	Gln	Pro	Ala	Pro	Thr	Thr	Ile	Gly	Gly	Leu
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Asn	Lys	Lys	Pro	Met	Ser	Leu	Ala	Ser	Gly	Leu	Val	Pro	Ala	Ala	Pro
			740					745					750		
Pro	Lys	Arg	Pro	Ala	Val	Ala	Ser	Ala	Arg	Pro	Ser	Ile	Leu	Pro	Ser
	755						760					765			
Lys	Asp	Val	Lys	Pro	Lys	Pro	Ile	Ala	Asp	Ala	Lys	Ala	Pro	Glu	Lys
	770					775					780				
Arg	Ala	Ser	Pro	Ser	Lys	Pro	Ala	Ser	Ala	Pro	Ala	Ser	Arg	Ser	Gly
785					790					795					800
Ser	Lys	Ser	Thr	Gln	Thr	Val	Ala	Lys	Thr	Thr	Thr	Ala	Ala	Ala	Val
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Ala	Ser	Thr	Gly	Pro	Ser	Ser	Arg	Ser	Pro	Ser	Thr	Leu	Leu	Pro	Lys
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Lys	Pro	Thr	Ala	Ile	Lys	Thr	Glu	Gly	Lys	Pro	Ala	Glu	Val	Lys	Lys
	835						840					845			
Met	Thr	Ala	Lys	Ser	Val	Pro	Ala	Asp	Leu	Ser	Arg	Pro	Lys	Ser	Thr
	850					855					860				
Ser	Thr	Ser	Ser	Met	Lys	Lys	Thr	Thr	Thr	Leu	Ser	Gly	Thr	Ala	Pro
865					870					875					880
Ala	Ala	Gly	Val	Val	Pro	Ser	Arg	Val	Lys	Ala	Thr	Pro	Met	Pro	Ser
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Arg	Pro	Ser	Thr	Pro	Phe	Ile	Asp	Lys	Lys	Pro	Thr	Ser	Ala	Lys	
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 Ala Pro Asp Leu Lys Asn Val Arg Ser Lys Val Gly Ser Thr Glu Asn
 930 935 940
 Ile Lys His Gln Pro Gly Gly Gly Arg Val Gln Ile Val Ser Lys Lys
 945 950 955 960
 Val Ser Tyr Ser His Ile Gln Ser Lys Cys Gly Ser Lys Asp Asn Ile
 965 970 975
 Lys His Val Pro Gly Gly Gly Asn Val Gln Ile Gln Asn Lys Lys Val
 980 985 990
 Asp Ile Ser Lys Val Ser Ser Lys Cys Gly Ser Lys Ala Asn Ile Lys
 995 1000 1005
 His Lys Pro Gly Gly Gly Asp Val Lys Ile Glu Ser Gln Lys Leu Asn
 1010 1015 1020
 Phe Lys Glu Lys Ala Gln Ala Lys Val Gly Ser Leu Asp Asn Val Gly
 1025 1030 1035 1040
 His Leu Pro Ala Gly Gly Ala Val Lys Thr Glu Gly Gly Gly Ser Glu
 1045 1050 1055
 Ala Pro Leu Cys Pro Gly Pro Pro Ala Gly Glu Glu Pro Ala Ile Ser
 1060 1065 1070
 Glu Ala Ala Pro Glu Ala Gly Ala Pro Thr Ser Ala Ser Gly Leu Asn
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 <212> DNA
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<400> 173
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<210> 174

<211> 1082

<212> PRT

<213> Homo sapiens

<400> 174

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Ile	Glu	Gly	Glu	Ile	Lys	Arg	Asp	Phe	Ile	Ala	Thr	Leu	Glu	Ala	Glu
			20					25					30		
Ala	Phe	Asp	Asp	Val	Val	Gly	Glu	Thr	Val	Gly	Lys	Thr	Asp	Tyr	Ile
			35				40						45		

Pro	Leu	Leu	Asp	Val	Asp	Glu	Lys	Thr	Gly	Asn	Ser	Glu	Ser	Lys	Lys	50	55	60
Lys	Pro	Cys	Ser	Glu	Thr	Ser	Gln	Ile	Glu	Asp	Thr	Pro	Ser	Ser	Lys	65	70	75
Pro	Thr	Leu	Leu	Ala	Asn	Gly	Gly	His	Gly	Val	Glu	Gly	Ser	Asp	Thr	85	90	95
Thr	Gly	Ser	Pro	Thr	Glu	Phe	Leu	Glu	Glu	Lys	Met	Ala	Tyr	Gln	Glu	100	105	110
Tyr	Pro	Asn	Ser	Gln	Asn	Trp	Pro	Glu	Asp	Thr	Asn	Phe	Cys	Phe	Gln	115	120	125
Pro	Glu	Gln	Val	Val	Asp	Pro	Ile	Gln	Thr	Asp	Pro	Phe	Lys	Met	Tyr	130	135	140
His	Asp	Asp	Asp	Leu	Ala	Asp	Leu	Val	Phe	Pro	Ser	Ser	Ala	Thr	Ala	145	150	155
Asp	Thr	Ser	Ile	Phe	Ala	Gly	Gln	Asn	Asp	Pro	Leu	Lys	Asp	Ser	Tyr	165	170	175
Gly	Met	Ser	Pro	Cys	Asn	Thr	Ala	Val	Val	Pro	Gln	Gly	Trp	Ser	Val	180	185	190
Glu	Ala	Leu	Asn	Ser	Pro	His	Ser	Glu	Ser	Phe	Val	Ser	Pro	Glu	Ala	195	200	205
Val	Ala	Glu	Pro	Pro	Gln	Pro	Thr	Ala	Val	Pro	Leu	Glu	Leu	Ala	Lys	210	215	220
Glu	Ile	Glu	Met	Ala	Ser	Glu	Glu	Arg	Pro	Pro	Ala	Gln	Ala	Leu	Glu	225	230	235
Ile	Met	Met	Gly	Leu	Lys	Thr	Thr	Asp	Met	Ala	Pro	Ser	Lys	Glu	Thr	245	250	255
Glu	Met	Ala	Leu	Ala	Lys	Asp	Met	Ala	Leu	Ala	Thr	Lys	Thr	Glu	Val	260	265	270
Ala	Leu	Ala	Lys	Asp	Met	Glu	Ser	Pro	Thr	Lys	Leu	Asp	Val	Thr	Leu	275	280	285
Ala	Lys	Asp	Met	Gln	Pro	Ser	Met	Glu	Ser	Asp	Met	Ala	Leu	Val	Lys	290	295	300
Asp	Met	Glu	Leu	Pro	Thr	Glu	Lys	Glu	Val	Ala	Leu	Val	Lys	Asp	Val	305	310	315
Arg	Trp	Pro	Thr	Glu	Thr	Asp	Val	Ser	Ser	Ala	Lys	Asn	Val	Val	Leu	325	330	335
Pro	Thr	Glu	Thr	Glu	Val	Ala	Pro	Ala	Lys	Asp	Val	Thr	Leu	Leu	Lys	340	345	350
Glu	Thr	Glu	Arg	Ala	Ser	Pro	Ile	Lys	Met	Asp	Leu	Ala	Pro	Ser	Lys	355	360	365
Asp	Met	Gly	Pro	Pro	Lys	Glu	Asn	Lys	Lys	Glu	Thr	Glu	Arg	Ala	Ser	370	375	380
Pro	Ile	Lys	Met	Asp	Leu	Ala	Pro	Ser	Lys	Asp	Met	Gly	Pro	Pro	Lys	385	390	395
Glu	Asn	Lys	Ile	Val	Pro	Ala	Lys	Asp	Leu	Val	Leu	Leu	Ser	Glu	Ile	405	410	415
Glu	Val	Ala	Gln	Ala	Asn	Asp	Ile	Ile	Ser	Ser	Thr	Glu	Ile	Ser	Ser	420	425	430
Ala	Glu	Lys	Val	Ala	Leu	Ser	Ser	Glu	Thr	Glu	Val	Ala	Leu	Ala	Arg	435	440	445
Asp	Met	Thr	Leu	Pro	Pro	Glu	Thr	Asn	Val	Ile	Leu	Thr	Lys	Asp	Lys	450	455	460
Ala	Leu	Pro	Leu	Glu	Ala	Glu	Val	Ala	Pro	Val	Lys	Asp	Met	Ala	Gln	465	470	475
Leu	Pro	Glu	Thr	Glu	Ile	Ala	Pro	Ala	Lys	Asp	Val	Ala	Pro	Ser	Thr	485	490	495
Val	Lys	Glu	Val	Gly	Leu	Leu	Lys	Asp	Met	Ser	Pro	Leu	Ser	Glu	Thr	500	505	510
Glu	Met	Ala	Leu	Gly	Lys	Asp	Val	Thr	Pro	Pro	Pro	Glu	Thr	Glu	Val	515	520	525

Val	Leu	Ile	Lys	Asn	Val	Cys	Leu	Pro	Pro	Glu	Met	Glu	Val	Ala	Leu
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Thr	Glu	Asp	Gln	Val	Pro	Ala	Leu	Lys	Thr	Glu	Ala	Pro	Leu	Ala	Lys
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Asp	Gly	Val	Leu	Thr	Leu	Ala	Asn	Asn	Val	Thr	Pro	Ala	Lys	Asp	Val
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Pro	Pro	Leu	Ser	Glu	Thr	Glu	Ala	Thr	Pro	Val	Pro	Ile	Lys	Asp	Met
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Glu	Asp	Ser	Val	Leu	Glu	Lys	Leu	Gly	Glu	Arg	Lys	Pro	Cys	Asn	Ser
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Gln	Pro	Ser	Glu	Leu	Ser	Ser	Glu	Thr	Ser	Gly	Ile	Ala	Arg	Pro	Glu
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Glu	Gly	Arg	Pro	Val	Val	Ser	Gly	Thr	Gly	Asn	Asp	Ile	Thr	Thr	Pro
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Pro	Asn	Lys	Glu	Leu	Pro	Pro	Ser	Pro	Glu	Lys	Lys	Thr	Lys	Pro	Leu
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Ala	Thr	Thr	Gln	Pro	Ala	Lys	Thr	Ser	Thr	Ser	Lys	Ala	Lys	Thr	Gln
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Pro	Thr	Ser	Leu	Pro	Lys	Gln	Pro	Ala	Pro	Thr	Thr	Ile	Gly	Gly	Leu
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Asn	Lys	Lys	Pro	Met	Ser	Leu	Ala	Ser	Gly	Leu	Val	Pro	Ala	Ala	Pro
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Arg	Ala	Ser	Pro	Ser	Lys	Pro	Ala	Ser	Ala	Pro	Ala	Ser	Arg	Ser	Gly
785					790				795						800
Ser	Lys	Ser	Thr	Gln	Thr	Val	Ala	Lys	Thr	Thr	Thr	Ala	Ala	Ala	Val
				805					810					815	
Ala	Ser	Thr	Gly	Pro	Ser	Ser	Arg	Ser	Pro	Ser	Thr	Leu	Leu	Pro	Lys
			820					825					830		
Lys	Pro	Thr	Ala	Ile	Lys	Thr	Glu	Gly	Lys	Pro	Ala	Glu	Val	Lys	Lys
		835					840					845			
Met	Thr	Ala	Lys	Ser	Val	Pro	Ala	Asp	Leu	Ser	Arg	Pro	Lys	Ser	Thr
	850					855					860				
Ser	Thr	Ser	Ser	Met	Lys	Lys	Thr	Thr	Thr	Leu	Ser	Gly	Thr	Ala	Pro
865					870					875					880
Ala	Ala	Gly	Val	Val	Pro	Ser	Arg	Val	Lys	Ala	Thr	Pro	Met	Pro	Ser
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			900					905					910		
Pro	Ser	Ser	Thr	Thr	Pro	Arg	Leu	Ser	Arg	Leu	Ala	Thr	Asn	Thr	Ser
		915					920						925		
Ala	Pro	Asp	Leu	Lys	Asn	Val	Arg	Ser	Lys	Val	Gly	Ser	Thr	Glu	Asn
		930				935					940				
Ile	Lys	His	Gln	Pro	Gly	Gly	Gly	Arg	Val	Gln	Ile	Gln	Asn	Lys	Lys
945					950					955					960
Val	Asp	Ile	Ser	Lys	Val	Ser	Ser	Lys	Cys	Gly	Ser	Lys	Ala	Asn	Ile
				965					970					975	
Lys	His	Lys	Pro	Gly	Gly	Gly	Asp	Val	Lys	Ile	Glu	Ser	Gln	Lys	Leu
			980					985					990		
Asn	Phe	Lys	Glu	Lys	Ala	Gln	Ala	Lys	Val	Gly	Ser	Leu	Asp	Asn	Val
		995					1000						1005		

Gly His Leu Pro Ala Gly Gly Ala Val Lys Thr Glu Gly Gly Gly Ser
 1010 1015 1020
 Glu Ala Pro Leu Cys Pro Gly Pro Pro Ala Gly Glu Glu Pro Ala Ile
 1025 1030 1035 1040
 Ser Glu Ala Ala Pro Glu Ala Gly Ala Pro Thr Ser Ala Ser Gly Leu
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 1060 1065 1070
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<210> 175
 <211> 4348
 <212> DNA
 <213> Homo sapiens

<400> 175
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 ccgtctcggc ggcgccgggc agttgcagtg gtgcagaatg gctgacctca gtcttgacaga 180
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 aatgatccc ttgaaagaca gttacgttcc cttagagcta gccaaggaga tagaaatggc 720
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<210> 176
 <211> 1041
 <212> PRT
 <213> Homo sapiens

<400> 176

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		20						25					30		
Ala	Phe	Asp	Asp	Val	Val	Gly	Glu	Thr	Val	Gly	Lys	Thr	Asp	Tyr	Ile
		35					40					45			
Pro	Leu	Leu	Asp	Val	Asp	Glu	Lys	Thr	Gly	Asn	Ser	Glu	Ser	Lys	Lys
		50				55					60				
Lys	Pro	Cys	Ser	Glu	Thr	Ser	Gln	Ile	Glu	Asp	Thr	Pro	Ser	Ser	Lys
65					70					75				80	
Pro	Thr	Leu	Leu	Ala	Asn	Gly	Gly	His	Gly	Val	Glu	Gly	Ser	Asp	Thr
				85					90					95	
Thr	Gly	Ser	Pro	Thr	Glu	Phe	Leu	Glu	Glu	Lys	Met	Ala	Tyr	Gln	Glu
			100					105						110	
Tyr	Pro	Asn	Ser	Gln	Asn	Trp	Pro	Glu	Asp	Thr	Asn	Phe	Cys	Phe	Gln
		115					120					125			
Pro	Glu	Gln	Val	Val	Asp	Pro	Ile	Gln	Thr	Asp	Pro	Phe	Lys	Met	Tyr
		130				135					140				
His	Asp	Asp	Asp	Leu	Ala	Asp	Leu	Val	Phe	Pro	Ser	Ser	Ala	Thr	Ala
145					150					155				160	
Asp	Thr	Ser	Ile	Phe	Ala	Gly	Gln	Asn	Asp	Pro	Leu	Lys	Asp	Ser	Tyr
			165					170						175	
Val	Pro	Leu	Glu	Leu	Ala	Lys	Glu	Ile	Glu	Met	Ala	Ser	Glu	Glu	Arg
			180					185					190		

Pro	Pro	Ala	Gln	Ala	Leu	Glu	Ile	Met	Met	Gly	Leu	Lys	Thr	Thr	Asp
		195					200					205			
Met	Ala	Pro	Ser	Lys	Glu	Thr	Glu	Met	Ala	Leu	Ala	Lys	Asp	Met	Ala
	210					215					220				
Leu	Ala	Thr	Lys	Thr	Glu	Val	Ala	Leu	Ala	Lys	Asp	Met	Glu	Ser	Pro
225					230					235					240
Thr	Lys	Leu	Asp	Val	Thr	Leu	Ala	Lys	Asp	Met	Gln	Pro	Ser	Met	Glu
			245						250					255	
Ser	Asp	Met	Ala	Leu	Val	Lys	Asp	Met	Glu	Leu	Pro	Thr	Glu	Lys	Glu
		260						265					270		
Val	Ala	Leu	Val	Lys	Asp	Val	Arg	Trp	Pro	Thr	Glu	Thr	Asp	Val	Ser
	275						280					285			
Ser	Ala	Lys	Asn	Val	Val	Leu	Pro	Thr	Glu	Thr	Glu	Val	Ala	Pro	Ala
	290					295					300				
Lys	Asp	Val	Thr	Leu	Leu	Lys	Glu	Thr	Glu	Arg	Ala	Ser	Pro	Ile	Lys
305				310						315					320
Met	Asp	Leu	Ala	Pro	Ser	Lys	Asp	Met	Gly	Pro	Pro	Lys	Glu	Asn	Lys
			325						330					335	
Lys	Glu	Thr	Glu	Arg	Ala	Ser	Pro	Ile	Lys	Met	Asp	Leu	Ala	Pro	Ser
		340						345					350		
Lys	Asp	Met	Gly	Pro	Pro	Lys	Glu	Asn	Lys	Ile	Val	Pro	Ala	Lys	Asp
	355					360						365			
Leu	Val	Leu	Leu	Ser	Glu	Ile	Glu	Val	Ala	Gln	Ala	Asn	Asp	Ile	Ile
	370					375					380				
Ser	Ser	Thr	Glu	Ile	Ser	Ser	Ala	Glu	Lys	Val	Ala	Leu	Ser	Ser	Glu
385				390						395					400
Thr	Glu	Val	Ala	Leu	Ala	Arg	Asp	Met	Thr	Leu	Pro	Pro	Glu	Thr	Asn
			405						410					415	
Val	Ile	Leu	Thr	Lys	Asp	Lys	Ala	Leu	Pro	Leu	Glu	Ala	Glu	Val	Ala
		420						425					430		
Pro	Val	Lys	Asp	Met	Ala	Gln	Leu	Pro	Glu	Thr	Glu	Ile	Ala	Pro	Ala
	435					440						445			
Lys	Asp	Val	Ala	Pro	Ser	Thr	Val	Lys	Glu	Val	Gly	Leu	Leu	Lys	Asp
	450					455					460				
Met	Ser	Pro	Leu	Ser	Glu	Thr	Glu	Met	Ala	Leu	Gly	Lys	Asp	Val	Thr
465				470						475					480
Pro	Pro	Pro	Glu	Thr	Glu	Val	Val	Leu	Ile	Lys	Asn	Val	Cys	Leu	Pro
			485						490					495	
Pro	Glu	Met	Glu	Val	Ala	Leu	Thr	Glu	Asp	Gln	Val	Pro	Ala	Leu	Lys
		500						505					510		
Thr	Glu	Ala	Pro	Leu	Ala	Lys	Asp	Gly	Val	Leu	Thr	Leu	Ala	Asn	Asn
	515					520						525			
Val	Thr	Pro	Ala	Lys	Asp	Val	Pro	Pro	Leu	Ser	Glu	Thr	Glu	Ala	Thr
	530					535					540				
Pro	Val	Pro	Ile	Lys	Asp	Met	Glu	Ile	Ala	Gln	Thr	Gln	Lys	Gly	Ile
545				550						555					560
Ser	Glu	Asp	Ser	His	Leu	Glu	Ser	Leu	Gln	Asp	Val	Gly	Gln	Ser	Ala
			565						570					575	
Ala	Pro	Thr	Phe	Met	Ile	Ser	Pro	Glu	Thr	Ile	Thr	Gly	Thr	Gly	Lys
		580						585					590		
Lys	Cys	Ser	Leu	Pro	Ala	Glu	Glu	Asp	Ser	Val	Leu	Glu	Lys	Leu	Gly
	595						600					605			
Glu	Arg	Lys	Pro	Cys	Asn	Ser	Gln	Pro	Ser	Glu	Leu	Ser	Ser	Glu	Thr
	610					615					620				
Ser	Gly	Ile	Ala	Arg	Pro	Glu	Glu	Gly	Arg	Pro	Val	Val	Ser	Gly	Thr
625				630						635					640
Gly	Asn	Asp	Ile	Thr	Pro	Pro	Asn	Lys	Glu	Leu	Pro	Pro	Ser	Pro	Pro
			645					650					655		
Glu	Lys	Lys	Thr	Lys	Pro	Leu	Ala	Thr	Gln	Pro	Ala	Lys	Thr	Ser	Ser
		660						665				670			

Thr Ser Lys Ala Lys Thr Gln Pro Thr Ser Leu Pro Lys Gln Pro Ala
 675 680 685
 Pro Thr Thr Ile Gly Gly Leu Asn Lys Lys Pro Met Ser Leu Ala Ser
 690 695 700
 Gly Leu Val Pro Ala Ala Pro Pro Lys Arg Pro Ala Val Ala Ser Ala
 705 710 715 720
 Arg Pro Ser Ile Leu Pro Ser Lys Asp Val Lys Pro Lys Pro Ile Ala
 725 730 735
 Asp Ala Lys Ala Pro Glu Lys Arg Ala Ser Pro Ser Lys Pro Ala Ser
 740 745 750
 Ala Pro Ala Ser Arg Ser Gly Ser Lys Ser Thr Gln Thr Val Ala Lys
 755 760 765
 Thr Thr Thr Ala Ala Ala Val Ala Ser Thr Gly Pro Ser Ser Arg Ser
 770 775 780
 Pro Ser Thr Leu Leu Pro Lys Lys Pro Thr Ala Ile Lys Thr Glu Gly
 785 790 795 800
 Lys Pro Ala Glu Val Lys Lys Met Thr Ala Lys Ser Val Pro Ala Asp
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 Leu Ser Arg Pro Lys Ser Thr Ser Thr Ser Ser Met Lys Lys Thr Thr
 820 825 830
 Thr Leu Ser Gly Thr Ala Pro Ala Ala Gly Val Val Pro Ser Arg Val
 835 840 845
 Lys Ala Thr Pro Met Pro Ser Arg Pro Ser Thr Thr Pro Phe Ile Asp
 850 855 860
 Lys Lys Pro Thr Ser Ala Lys Pro Ser Ser Thr Thr Pro Arg Leu Ser
 865 870 875 880
 Arg Leu Ala Thr Asn Thr Ser Ala Pro Asp Leu Lys Asn Val Arg Ser
 885 890 895
 Lys Val Gly Ser Thr Glu Asn Ile Lys His Gln Pro Gly Gly Gly Arg
 900 905 910
 Val Gln Ile Gln Asn Lys Lys Val Asp Ile Ser Lys Val Ser Ser Lys
 915 920 925
 Cys Gly Ser Lys Ala Asn Ile Lys His Lys Pro Gly Gly Gly Asp Val
 930 935 940
 Lys Ile Glu Ser Gln Lys Leu Asn Phe Lys Glu Lys Ala Gln Ala Lys
 945 950 955 960
 Val Gly Ser Leu Asp Asn Val Gly His Leu Pro Ala Gly Gly Ala Val
 965 970 975
 Lys Thr Glu Gly Gly Gly Ser Glu Ala Pro Leu Cys Pro Gly Pro Pro
 980 985 990
 Ala Gly Glu Glu Pro Ala Ile Ser Glu Ala Ala Pro Glu Ala Gly Ala
 995 1000 1005
 Pro Thr Ser Ala Ser Gly Leu Asn Gly His Pro Thr Leu Ser Gly Gly
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<210> 177

<211> 326

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

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<223> n = g, a, c or t

<400> 177

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60

120

agtgaaaaaa	ggtttatgag	ttcacactga	taggtgngtc	ggtgaatcag	gtctaggaca	180
acatcgactc	tcataaacna	gcctattcct	aactgatctg	taccagaaa	gagtcatacc	240
tgagtagcag	caggtaataa	acattgaaag	gaactgtcca	gattgaggct	tcaaactgtt	300
gacaattgaa	gagcgagggg	tcaatg				326

<210> 178
 <211> 328
 <212> DNA
 <213> Homo sapiens

<220>
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 <223> n = g, a, c or t

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aggctgntta	tgagagtcga	tatttcttag	acctgattca	ccgaccacca	tcagttgtga	180
actcataaac	cttttttcac	tgatttttcg	gtgaacttga	ttggggagggt	ttgnaatttn	240
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ctatatttgt	gaagcttcgt	cttatgag				328

<210> 179
 <211> 307
 <212> DNA
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<220>
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 <223> n = g, a, c or t

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tatgagagtc	gatttttcta	gacctgattc	accgaccacc	atcagtggtga	actcaaaacc	180
tttttttact	gatttttcgg	gaacttgatt	ggggagggtt	gcaaataccaa	catagccagg	240
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ttatgag						307

<210> 180
 <211> 307
 <212> DNA
 <213> Homo sapiens

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tctcataaac	agcctattcc	taactgatct	gtaccagaaa	agagtcatac	ctggagcagc	240
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ggtcaag						307

<210> 181
 <211> 302
 <212> DNA
 <213> Homo sapiens

<400> 181						
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aaaaagggtt	tgatgtcaca	ctgatgtgg	cggtgaatca	ggtctaggaa	aatcgactct	180
cataaacagc	ctattcctaa	ctgatctgta	cccgaaagag	tcataacctga	gcagcagaaa	240
aaattgaaag	aactgtccag	attgaggctt	caactgttga	aattgaagag	cgaggggtca	300
ag						302

<210> 182
 <211> 307
 <212> DNA
 <213> Homo sapiens

<400> 182						
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gaaaaaagg	tttgagttca	caactgatgg	ggtcgggtgaa	tcaggtctag	gaaaatcgac	180
tctcataaac	agcctattcc	taactgatct	gtaccagaa	agagtcatac	ctggagcagc	240
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ggtcaag						307

<210> 183
 <211> 3433
 <212> DNA
 <213> Homo sapiens

<400> 183						
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<210> 184

<211> 361

<212> PRT

<213> Homo sapiens

<400> 184

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Tyr	Val	Gly	Phe	Ala	Asn	Leu	Pro	Asn	Gln	Val	His	Arg	Lys	Ser	Val
			20					25					30		
Lys	Lys	Gly	Phe	Glu	Phe	Thr	Leu	Met	Val	Val	Gly	Glu	Ser	Gly	Leu
			35				40					45			
Gly	Lys	Ser	Thr	Leu	Ile	Asn	Ser	Leu	Phe	Leu	Thr	Asp	Leu	Tyr	Pro
			50			55					60				
Glu	Arg	Val	Ile	Pro	Gly	Ala	Ala	Glu	Lys	Ile	Glu	Arg	Thr	Val	Gln
65				70				75						80	
Ile	Glu	Ala	Ser	Thr	Val	Glu	Ile	Glu	Glu	Arg	Gly	Val	Lys	Leu	Arg
			85					90						95	
Leu	Thr	Val	Val	Asp	Thr	Pro	Gly	Tyr	Gly	Asp	Ala	Ile	Asn	Cys	Arg
			100				105						110		
Asp	Cys	Phe	Lys	Thr	Ile	Ile	Ser	Tyr	Ile	Asp	Glu	Gln	Phe	Glu	Arg
			115				120					125			
Tyr	Leu	His	Asp	Glu	Ser	Gly	Leu	Asn	Arg	Arg	His	Ile	Ile	Asp	Asn
			130			135					140				
Arg	Val	His	Cys	Cys	Phe	Tyr	Phe	Ile	Ser	Pro	Phe	Gly	His	Gly	Leu
145				150					155						160
Lys	Pro	Leu	Asp	Val	Ala	Phe	Met	Lys	Ala	Ile	His	Asn	Lys	Val	Asn
			165					170						175	
Ile	Val	Pro	Val	Ile	Ala	Lys	Ala	Asp	Thr	Leu	Thr	Leu	Lys	Glu	Arg
			180				185						190		
Glu	Arg	Leu	Lys	Lys	Arg	Ile	Leu	Asp	Glu	Ile	Glu	Glu	His	Asn	Ile
			195				200					205			
Lys	Ile	Tyr	His	Leu	Pro	Asp	Ala	Glu	Ser	Asp	Glu	Asp	Glu	Asp	Phe
			210			215				220					
Lys	Glu	Gln	Thr	Arg	Leu	Lys	Ala	Ser	Ile	Pro	Phe	Ser	Val	Val	
225				230					235					240	
Gly	Ser	Asn	Gln	Leu	Ile	Glu	Ala	Lys	Gly	Lys	Lys	Val	Arg	Gly	Arg
			245					250						255	

Leu	Tyr	Pro	Trp	Gly	Val	Val	Glu	Val	Glu	Asn	Pro	Glu	His	Asn	Asp
			260					265					270		
Phe	Leu	Lys	Leu	Arg	Thr	Met	Leu	Ile	Thr	His	Met	Gln	Asp	Leu	Gln
		275					280					285			
Glu	Val	Thr	Gln	Asp	Leu	His	Tyr	Glu	Asn	Phe	Arg	Ser	Glu	Arg	Leu
		290				295					300				
Lys	Arg	Gly	Gly	Arg	Lys	Val	Glu	Asn	Glu	Asp	Met	Asn	Lys	Asp	Gln
305					310					315					320
Ile	Leu	Leu	Glu	Lys	Glu	Ala	Glu	Leu	Arg	Arg	Met	Gln	Glu	Met	Ile
				325					330					335	
Ala	Arg	Met	Gln	Ala	Gln	Met	Gln	Met	Gln	Met	Gln	Gly	Gly	Asp	Gly
			340					345					350		
Asp	Gly	Gly	Ala	Leu	Gly	His	His	Val							
		355					360								

<210> 185
 <211> 469
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(469)
 <223> n = g, a, c or t

<400> 185	
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caaagccagc cacatcctga tctctgtgga tgggaaggct tacctgtctg gtttgcgcag	120
caacctcagc atgataagcc atgggcagcg gcagcgagtg gtccacgatt ttcccaagta	180
cagtgtcaag gnttctgccg tggtcagcc cagaggtcct ccagcagaat ctccagggtt	240
atgatgccaa gtctgacatc tacagtgtgg gaatcacagc ctgtgaactg gccaacggcc	300
atgtcccctt taaggatatg cctgccaccc agatgctgct agagaaactg aacggcacag	360
tgccctgcct gttggatacc agcaccatcc ctgctgagga gctgaccatg agcccttcgc	420
gctcagtggc caactctggc ctgagtgcac gcctgaccac cagcacccc	469

<210> 186
 <211> 456
 <212> DNA
 <213> Homo sapiens

<400> 186	
cagggggtgc tgaaggccct cgactacatc caccacatgg gatatgtaca caggagtgtc	60
aaagccagcc acatcctgat ctctgtggat ggggaaggct acctgtctgg tttgcgcagc	120
aacctcagca tgataagcca tgggcagcgg cagcgagtggt tccacgattt tcccaagtac	180
agtgtcaagg ttctgccgtg gctcagcccc gaggtcctcc agcagaatct ccagggttat	240
gatgccaaagt ctgacatcta cagtgtggga atcacagcct gtgaactggc caacggccat	300
gtccccttta aggatatgcc tgccaccacag atgctgctag agaaactgaa cggcacagtg	360
ccctgcctgt tggataccag caccatccct gctgaggagc tgaccatgag cccttcgcgc	420
tcagtggcca actctggcct gagtgcacgc ctgacc	456

<210> 187
 <211> 461
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(461)
 <223> n = g, a, c or t

```

<400> 187
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agattccact gtggctcctga gactggctgc cctcaaaatt ggtgatgggg gtgacaggac      120
gaagcaattc gggcaaagcc tctgaggcac gtcgcttgat ctgggggaga agagagaggt      180
gggtgacaga tcctgttgct ctgggtccca gnacaccatg gggcaaggaa ccatggcctg      240
ntggcagacg ggctgtcgga gccaaactcca tgagaggaag gagcagtgtc tttcaggggc      300
ttcggaagng gggtagtttc tctcattcaa aangagggga gagaaanctg gcatccgggt      360
tgcgctgaag gcactgctcc acaaagtggg ggaagtgggg ggagaagggt cggtggtagg      420
ggtgggaggg cgagtcaccg taggnngggc ggggggtgct g                                     461

```

```

<210> 188
<211> 461
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(461)
<223> n = g, a, c or t

```

```

<400> 188
caggggggtgc tgaaggccct cgactacatc caccacatgg gatatgtaca caggagtgtc      60
aaagccagcc acatcctgat ctctgtggat ggggaaggct acctgtctgg tttgcgcagc      120
aacctcagca tgataagcca tgggcagcgg cagcgagtgg tccacgattt tcccaagtac      180
agtgtcaagg ttctgccgtg gctcagcccc gaggtcctcc agcagaatct ccagggttat      240
gatgccaaagt ctgacatcta cagtgtggga atcacagcct gtgaactggc caacggccat      300
gtcccccttta aggatatgcc tgccaccagc atgctgctag agaaactgaa cggcacagtg      360
ccctgcctgt tggataccag caccatccct gctgaggagc tgaccatgag cccttcgcgc      420
tcagtggcca actctggcct gagtgncagc ctgaccaaca g                                     461

```

```

<210> 189
<211> 350
<212> DNA
<213> Homo sapiens

```

```

<400> 189
cagaggctca gaactcccaa tcgtccacct ccagctcttc caggtttggt accaggccaa      60
agattccact gtggctcctga gactggctgc cctcaaaatt ggtgatgggg gtgacaggac      120
gaagcaattc gggcaaagcc tctgaggcac gtcgcttgat ctgggggaga agagagaggt      180
gggtgacaga tcctgttgct ctgggtccca ggacaccatg gggcaaggaa ccatggcctg      240
gtggcagacg ggctgtcgga gccaaactcca tgagaggaag gagcagtgtc tttcaggggc      300
ttcggaagcg gggtagtttc tctcattcaa aaggagggga gagaaagctg                                     350

```

```

<210> 190
<211> 647
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> modified_base
<222> (1)...(647)
<223> n = g, a, c or t

```

```

<400> 190
cagaggctca gaactcccaa tcgtccacct ccagctcttc caggtttggt accaggccaa      60
agattccact gtggctcctga gactggctgc cctcaaaatt ggtgatgggg gtgacaggac      120
gaagcaattc gggcaaagcc tctgaggcac gtcgcttgat ctgggggaga agagagaggt      180
gggtgacaga tcctgttgct ctgggtccca ggacaccatg gggcaaggaa ccatggcctg      240
gtggcagacg ggctgtcgga gccaaactcca tgagaggaag gagcagtgtc tttcaggggc      300
ttcggaagcg gggtagtttc tctcattcaa aaggagggga gagaaagctg gcatccgggt      360
tgcgctgaag gcactgctcc acaaagtggg ggaagtgggg ggagaagggt cggtggtagg      420

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ggtgggaggg	cgagtcaccg	tnggagggcc	ggggggtgct	ggtggtcang	ctgtcactca	480
ggccagagtt	ggnactgat	cgcgaanggc	tcattggtcag	ntcctcanca	gggatgggtgc	540
tggtatccaa	caggcagggc	actgtgccgt	tcagttttctc	tnagcagcat	ctgggtggca	600
ggcatatcct	taaaggggac	atggccggtg	gccactcaca	ggcctgt		647

<210> 191
 <211> 461
 <212> DNA
 <213> Homo sapiens

<400> 191						
caggggggtgc	tgaaggccct	cgactacatc	caccacatgg	gatatgtaca	caggagtgtc	60
aaagccagcc	acatcctgat	ctctgtggat	gggaagggtct	acctgtctgg	tttgcgcagc	120
aacctcagca	tgataagcca	tgggcagcgg	cagcgagtgg	tccacgattt	tcccaagtac	180
agtgtcaagg	ttctgccgtg	gctcagcccc	gaggtcctcc	agcagaatct	ccagggttat	240
gatgccaagt	ctgacatcta	cagtgtggga	atcacagcct	gtgaactggc	caacggccat	300
gtcccccttta	aggatatgcc	tgccacccag	atgctgctag	agaaactgaa	cggcacagtg	360
ccctgcctgt	tggataccag	caccatccct	gctgaggagc	tgaccatgag	cccttcgcgc	420
tcagtggcca	actctggcct	gagtgcacagc	ctgaccacca	g		461

<210> 192
 <211> 545
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(545)
 <223> n = g, a, c or t

<400> 192						
cagaggctca	gaactcccaa	tcgtccacct	ccagctcttc	caggtttggt	accaggccaa	60
agattccact	gtggtcctga	gactggctgc	cctcaaaatt	ggtgatgggg	gtgacaggac	120
gaagcaattc	gggcaaagcc	tctgaggcac	gtcgcttgat	ctgggggaga	agagagaggt	180
gggtgacaga	tcctgtngct	ctgggtccca	ggacaccatg	gggcaaggaa	ccatggcctg	240
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ggtgggaggg	cgagtcaccg	ttggagggcc	ggggggtgct	ggtggtcagg	ctgtcactca	480
ngccagagtt	ggccactgac	cgcgaagggc	tcattggtcag	ttcctcanca	gggatgggtgc	540
tggtta						545

<210> 193
 <211> 469
 <212> DNA
 <213> Homo sapiens

<400> 193						
caggggggtgc	tgaaggccct	cgactacatc	caccacatgg	gatatgtaca	caggagtgtc	60
aaagccagcc	acatcctgat	ctctgtggat	gggaagggtct	acctgtctgg	tttgcgcagc	120
aacctcagca	tgataagcca	tgggcagcgg	cagcgagtgg	tccacgattt	tcccaagtac	180
agtgtcaagg	ttctgccgtg	gctcagcccc	gaggtcctcc	agcagaatct	ccagggttat	240
gatgccaagt	ctgacatcta	cagtgtggga	atcacagcct	gtgaactggc	caacggccat	300
gtcccccttta	aggatatgcc	tgccacccag	atgctgctag	agaaactgaa	cggcacagtg	360
ccctgcctgt	tggataccag	caccatccct	gctgaggagc	tgaccatgag	cccttcgcgc	420
tcagtggcca	actctggcct	gagtgcacagc	ctgaccacca	gcaccccc		469

<210> 194
 <211> 365
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(365)
 <223> n = g, a, c or t

<400> 194
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 aaagccagcc acatcctgat ctctgtggat ggggaaggctt acctgtctgg tttgcgcagc 120
 aacctcagca tgataagcca tgggcagcgg cagcgagtgg tccacgattt tcccaagtac 180
 agtgtcaagg ttctgccgtg gctcagcccc gaggtcctcc agcagaatct ccagggttat 240
 gatgccaaagt ctgacatcta cagtgtggga atcacagcct gtgaactggc caacggncat 300
 gtccccttta aggatatgcc tgccacccat atgctgctag agaaactgaa cggcacagtg 360
 ccctg 365

<210> 195
 <211> 466
 <212> DNA
 <213> Homo sapiens

<400> 195
 cagggggtgc tgaaggccct cgactacatc caccacatgg gatatgtaca caggagtgtc 60
 aaagccagcc acatcctgat ctctgtggat ggggaaggctt acctgtctgg tttgcgcagc 120
 aacctcagca tgataagcca tgggcagcgg cagcgagtgg tccacgattt tcccaagtac 180
 agtgtcaagg ttctgccgtg gctcagcccc gaggtcctcc agcagaatct ccagggttat 240
 gatgccaaagt ctgacatcta cagtgtggga atcacagcct gtgaactggc caacggccat 300
 gtccccttta aggatatgcc tgccacccag atgctgctag agaaactgaa cggcacagtg 360
 ccctgcctgt tggataccag caccatccct gctgaggagc tgaccatgag cccttcgcgc 420
 tcagtggcca actctggcct gagtgcacagc ctgaccacca gcaccc 466

<210> 196
 <211> 658
 <212> DNA
 <213> Homo sapiens

<400> 196
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 agattccact gtggtcctga gactggctgc cctcaaaatt ggtgatgggg gtgacaggac 120
 gaagcaattc gggcaaagcc tctgaggcac gtcgcttgat ctgggggaga agagagaggt 180
 gggtgacaga tcctgttgct ctgggtccca ggacaccatg gggcaaggaa ccatggcctg 240
 ttggcagacg ggctgtcgga gccaaactcca tgagaggaag gagcagtgtc tttcaggggc 300
 ttcgggaagcg gggtagtctt tctcattcaa aaggagggga gagaaagctg gcatccgggt 360
 tgcgtgaagc gcactgctcc acaaagtggg ggaagtgggg ggagaagggt cgggtggtagg 420
 ggtgggaggg cgagtcaccg ttggagggcc ggggggtgct ggtggtcagg ctgtcactca 480
 ggccagagtt ggccactgag cgcaaggggc tcatggtcag ctctcagca gggatgggtg 540
 tggatatcaa caggcagggc actgtgccgt tcagtttctc tagcagcatc tgggtggcag 600
 gcatatcctt aaaggggaca tggccgttgg ccagttcaca ggctgtgatt cccacact 658

<210> 197
 <211> 466
 <212> DNA
 <213> Homo sapiens

<400> 197
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 aaagccagcc acatcctgat ctctgtggat ggggaaggctt acctgtctgg tttgcgcagc 120
 aacctcagca tgataagcca tgggcagcgg cagcgagtgg tccacgattt tcccaagtac 180
 agtgtcaagg ttctgccgtg gctcagcccc gaggtcctcc agcagaatct ccagggttat 240
 gatgccaaagt ctgacatcta cagtgtggga atcacagcct gtgaactggc caacggccat 300
 gtccccttta aggatatgcc tgccgccagc atgctgctag agaaactgaa cggcacagtg 360
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 tcagtggcca actctggcct gagtgcacagc ctgaccacca gcaccc 466

<210> 198
 <211> 418
 <212> DNA
 <213> Homo sapiens

```

<400> 198
cagaggctca gaactcccaa tcgtccacct ccagctcttc caggtttggt accaggccaa      60
agattccact gtggtcctga gactggctgc cctcaaaatt ggtgatgggg gtgacaggac      120
gaagcaattc gggcaaagcc tctgaggcac gtcgcttgat ctggggggaga agagagaggt      180
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gtggcagacg ggctgtcgga gccaaactcca tgagaggaag gagcagtgtc tttcaggggc      300
ttcggaagcg gggtagtttc tctcattcaa aaggagggga gagaaagctg gcatccgggt      360
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<210> 199
 <211> 465
 <212> DNA
 <213> Homo sapiens

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<400> 199
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aacctcagca tgataagcca tgggcagcgg cagcgagtgg tccacgattt tcccaagtac      180
agtgtcaagg ttctgccgtg gctcagcccc gaggtcctcc agcagaatct ccagggttat      240
gatgccaagt ctgacatcta cagtgtggga atcacagcct gtgaactggc caacggccat      300
gtccccctta aggatatgcc tgccaccagc atgctgctag agaaactgaa cggcacagtg      360
ccctgcctgt tggataccag caccatccct gctgaggagc tgaccatgag cccttcgcgc      420
tcagtggcca actctggcct gagtgcacgc ctgaccacca gcacc              465

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<210> 200
 <211> 573
 <212> DNA
 <213> Homo sapiens

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<400> 200
cagaggctca gaactcccaa tcgtccacct ccagctcttc caggtttggt accaggccaa      60
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gaagcaattc gggcaaagcc tctgaggcac gtcgcttgat ctggggggaga agagagaggt      180
gggtgacaga tcctgttgct ctgggtccca ggacaccatg gggcaaggaa ccatggcctg      240
gtggcagacg ggctgtcgga gccaaactcca tgagaggaag gagcagtgtc tttcaggggc      300
ttcggaagcg gggtagtttc tctcattcaa aaggagggga gagaaagctg gcatccgggt      360
tgcgctgaag gcactgctcc acaaagtggg ggaagtgggg ggagaagggt cggtggtagg      420
ggtgggaggg cgagtcaccg ttggagggcc ggggggtgct ggtggtcagg ctgtcactca      480
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tggtatccaa caggcagggc actgtgccgt tca              573

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<210> 201
 <211> 169
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(169)
 <223> n = g, a, c or t

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<400> 201
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aaanccagnc acatcctgat ctctgtggat ggggaaggctt acctgtctgg tttgcgcagc      120
aacctcagca tgataagcca tgggcagcgg cagcnagtgg tccangann              169

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<210> 202
 <211> 2143
 <212> DNA
 <213> Homo sapiens

<400> 202

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ttcttgtaag	taaaccagag	cgaatcaggc	ggtagggctc	ggaaaagttc	attgttgagg	180
gcttaagaga	tttggaacta	tttgagagc	agcctccggg	tgacactcgg	agaaaaacca	240
atgatgcgag	ctcagagtca	atagcatcct	tctctaaaca	ggagggtcatg	agtagctttc	300
tgccagaggg	aggggtgttac	gagctgctca	ctgtgatagg	caaaggattt	gaggacctga	360
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acctagaagc	ttgttccaat	gagatggtaa	cattcttgca	gggcgagctg	catgtctcca	480
aactcttcaa	ccatcccaat	atcgtgccat	atcgagccac	ttttattgca	gacaatgagc	540
tgtgggttgt	cacatcattc	atggcatacg	gttctgcaaa	agatctcatc	tgtacacact	600
tcatggatgg	catgaatgag	ctggcgattg	cttacatcct	gcaggggggtg	ctgaaggccc	660
tcgactacat	ccaccacatg	ggatatgtac	acaggagtgt	caaagccagc	cacatcctga	720
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gcagattggg	tagaaaggac	attcttccag	gaaagttgac	tgctgactga	ttgggaaaga	1560
aaatcctgga	gagacacttc	actgctccaa	ggcttttgag	acacaaggga	atctcaacaa	1620
ccagggatca	ggagggtcca	aagccgacat	tcccagtcct	gtgagctcag	gtgacctcct	1680
ccgcagaaga	gagatgctgc	tctggccctg	ggagctgaat	tccaagccca	gggtttggct	1740
ccttaaacc	gaggaccgcc	acctcttccc	agtgtctgcg	accagcctca	ttctatttaa	1800
ctttgtcttc	agatgcctca	gatgctatag	gtcagtgaag	gggcaagtag	taagctgcct	1860
gcctcccttc	cctcagacct	ctccctcata	attccagaga	agggcatttc	tgtcttttta	1920
agcacagact	aaggctggaa	cagtccatcc	ttatccctct	tctggcttgg	gccctgacac	1980
ctaagtcttt	cccacgggtt	atgtgtgtgc	ctcattcctt	tcccaccaag	aatccatctt	2040
agcgctcct	gccagctgcc	ctggtgcttt	ctccaagggc	catcagtgtc	ttgcctagct	2100
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<210> 203
 <211> 431
 <212> PRT
 <213> Homo sapiens

<400> 203

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Glu	Lys	Phe	Ile	Val	Glu	Gly	Leu	Arg	Asp	Leu	Glu	Leu	Phe	Gly	Glu
			20				25						30		
Gln	Pro	Pro	Gly	Asp	Thr	Arg	Arg	Lys	Thr	Asn	Asp	Ala	Ser	Ser	Glu
			35				40					45			
Ser	Ile	Ala	Ser	Phe	Ser	Lys	Gln	Glu	Val	Met	Ser	Ser	Phe	Leu	Pro
			50			55				60					
Glu	Gly	Gly	Cys	Tyr	Glu	Leu	Leu	Thr	Val	Ile	Gly	Lys	Gly	Phe	Glu
65					70				75					80	
Asp	Leu	Met	Thr	Val	Asn	Leu	Ala	Arg	Tyr	Lys	Pro	Thr	Gly	Glu	Tyr
			85					90						95	

Val	Thr	Val	Arg	Arg	Ile	Asn	Leu	Glu	Ala	Cys	Ser	Asn	Glu	Met	Val
			100					105					110		
Thr	Phe	Leu	Gln	Gly	Glu	Leu	His	Val	Ser	Lys	Leu	Phe	Asn	His	Pro
		115					120					125			
Asn	Ile	Val	Pro	Tyr	Arg	Ala	Thr	Phe	Ile	Ala	Asp	Asn	Glu	Leu	Trp
	130					135					140				
Val	Val	Thr	Ser	Phe	Met	Ala	Tyr	Gly	Ser	Ala	Lys	Asp	Leu	Ile	Cys
145					150					155				160	
Thr	His	Phe	Met	Asp	Gly	Met	Asn	Glu	Leu	Ala	Ile	Ala	Tyr	Ile	Leu
			165					170						175	
Gln	Gly	Val	Leu	Lys	Ala	Leu	Asp	Tyr	Ile	His	His	Met	Gly	Tyr	Val
		180					185						190		
His	Arg	Ser	Val	Lys	Ala	Ser	His	Ile	Leu	Ile	Ser	Val	Asp	Gly	Lys
	195						200					205			
Val	Tyr	Leu	Ser	Gly	Leu	Arg	Ser	Asn	Leu	Ser	Met	Ile	Ser	His	Gly
	210					215					220				
Gln	Arg	Gln	Arg	Val	Val	His	Asp	Phe	Pro	Lys	Tyr	Ser	Val	Lys	Val
225					230					235				240	
Leu	Pro	Trp	Leu	Ser	Pro	Glu	Val	Leu	Gln	Gln	Asn	Leu	Gln	Gly	Tyr
			245					250						255	
Asp	Ala	Lys	Ser	Asp	Ile	Tyr	Ser	Val	Gly	Ile	Thr	Ala	Cys	Glu	Leu
			260					265					270		
Ala	Asn	Gly	His	Val	Pro	Phe	Lys	Asp	Met	Pro	Ala	Thr	Gln	Met	Leu
	275						280					285			
Leu	Glu	Lys	Leu	Asn	Gly	Thr	Val	Pro	Cys	Leu	Leu	Asp	Thr	Ser	Thr
	290				295						300				
Ile	Pro	Ala	Glu	Glu	Leu	Thr	Met	Ser	Pro	Ser	Arg	Ser	Val	Ala	Asn
305					310					315				320	
Ser	Gly	Leu	Ser	Asp	Ser	Leu	Thr	Thr	Ser	Thr	Pro	Arg	Pro	Ser	Asn
			325					330					335		
Gly	Asp	Ser	Pro	Ser	His	Pro	Tyr	His	Arg	Thr	Phe	Ser	Pro	His	Phe
		340					345						350		
His	His	Phe	Val	Glu	Gln	Cys	Leu	Gln	Arg	Asn	Pro	Asp	Ala	Arg	Pro
		355					360					365			
Ser	Ala	Ser	Thr	Leu	Leu	Asn	His	Ser	Phe	Phe	Lys	Gln	Ile	Lys	Arg
	370					375					380				
Arg	Ala	Ser	Glu	Ala	Leu	Pro	Glu	Leu	Leu	Arg	Pro	Val	Thr	Pro	Ile
385					390					395				400	
Thr	Asn	Phe	Glu	Gly	Ser	Gln	Ser	Gln	Asp	His	Ser	Gly	Ile	Phe	Gly
			405					410					415		
Leu	Val	Thr	Asn	Leu	Glu	Glu	Leu	Glu	Val	Asp	Asp	Trp	Glu	Phe	
			420				425						430		

<210> 204

<211> 760

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(760)

<223> n = g, a, c or t

<400> 204

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catttgcaaa	acttacaccc	acagaaaact	caaagtctcc	agaggcataa	gctccaatcc	180
cccagagagc	tcgcactagc	attcttctcc	ctttctagta	gtacttttat	gggggggagt	240
tattcttccc	cacaaaagtg	agcggcgaca	ataaaaacaa	tgtttcccac	aaagagtttt	300
ccccggttct	tctcccaaaa	atttnggggg	ggcccccggt	tncccccg	gcgacggggg	360
cggnggggcc	cgccccccaa	aaccacaang	gnggtgtgtt	ccctctgaaa	gctcnnacaa	420

agaggggtga	ccccccccg	ttttgggtga	tgaataccgc	ccgaagatag	gncgcccga	480
aaagagccaa	cccnngaaaa	gagagatfff	tatatagagg	aagcaaaaac	gaaanganag	540
cggttttttt	ttttttgtcc	ngccaacaac	atggggggcc	cccgttttat	aaatagagtt	600
ttttgttttt	taaacaatcg	actttttttt	tccccccgtg	tatttaaaaa	agaaggaagg	660
gtattttata	ttnttggggg	ngcgtgtatt	atataaatta	tttagtgggg	tgcggggang	720
gaaagagnga	agctgtttat	cccatcaaaa	tattattgtg			760

<210> 205
 <211> 404
 <212> DNA
 <213> Homo sapiens

<400> 205						
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agctggctcc	cagctaccac	ctgttactff	gacaactcta	gcttcagggc	taccaggacc	120
atttgcaaaa	cttacaccca	cagaaaaactc	aaagtctcca	gaggcataag	ctccaacccc	180
cagagagctc	cacagcattc	ttctccttct	agtagtaact	ttggtttcca	ggaaaatcat	240
ctcatgctcg	ggccacagtc	acagtcctga	ccagcaccat	agaaatttca	gccattattc	300
tagttgtatg	gagtcattca	aaatactagt	tccgaaagaa	gtttcaaagg	tccaacgccc	360
agcatctttt	acctttgcta	atftttccat	aaattgaaag	cctt		404

<210> 206
 <211> 392
 <212> DNA
 <213> Homo sapiens

<400> 206						
atctacatga	ggtcctgtag	attgagcaac	tttggctatt	tgggtagctg	atccactgcc	60
aagctggctc	ccagctacca	cctgttactt	tgacaactct	agcttcaggg	ggctaccagg	120
accatttgca	aaacttacac	ccacagaaaa	ctcaaagtct	ccagaggcat	aagctccaac	180
ccccagagag	ctccacagca	ttcttctcct	tctagtagta	cttttggttt	ccaggaaaat	240
catctcatgc	tcgggccaca	gtcacagtcc	tgaccagcac	catagaaatt	tcagccatta	300
ttctagttgt	atggagtcac	tcaaaatact	agttccgaaa	gaagtttcaa	aggtccaacg	360
ccgagcattc	tttttacctt	tgctaatttt	tc			392

<210> 207
 <211> 297
 <212> DNA
 <213> Homo sapiens

<400> 207						
atctacatga	ggtcctgtag	attgagcaac	tttggctatt	tgggtagctg	atccactgcc	60
aagctggctc	ccagctacca	cctgttactt	tgacaactct	agcttcaggg	ctaccaggac	120
catttgcaaa	acttacaccc	acagaaaaact	caaagtctcc	agaggcataa	gctccaaccc	180
ccagagagct	ccacagcatt	cttctccttc	tagtagtact	tttggtttcc	aggaaaatca	240
tctcatgctc	gggccacagt	cacagtcctg	accagcacca	tagaaatttc	agccatt	297

<210> 208
 <211> 406
 <212> DNA
 <213> Homo sapiens

<400> 208						
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aagctggctc	ccagctacca	cctgttactt	tgacaactct	agcttcaggg	gctaccagga	120
ccatttgcaa	aacttacacc	cacagaaaaac	tcaaagtctc	cagaggcata	agctccaacc	180
cccagagagc	tccacagcat	tcttctcctt	ctagtagtac	ttttggtttc	caggaaaatc	240
atctcatgct	cgggccacag	tcacagtcct	gaccagcacc	atagaaattt	cagccattat	300
tctagttgta	tggagtcatt	caaaaatacta	gttccgaaag	aagtttcaaa	ggtccaacgc	360
cgagcatctt	ttacctttgc	taatttttcc	ataaattgaa	agcctt		406

<210> 209
 <211> 434
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(434)
 <223> n = g, a, c or t

<400> 209
 aatctacatg aggtcctgta gattgagcaa ctttggtat ttgggtagct gatccactgc 60
 caagctggct cccagctacc acctgttact ttgacaactc tagcttcagg ctacaggaca 120
 ttgcaaaac ttacacccac agaaaactca aagtctccag aagcataagc tccaaacccc 180
 aganagctcc aagattcttc tccttctagt agtacttttg gtttccagga aaatcatctc 240
 atgctcgggc cacagtcaca gtcctgacca gcaccataga aatttcagca ttattctagt 300
 tgtatgtgag tccttccaaa tactagtcc gaaagaagtt tccaagggtcc aacgccgagc 360
 atcttttacn ttggttaattt ttccctaaat tgaaagcctt ccgcagaaac cagcacagtg 420
 gttagataga taaa 434

<210> 210
 <211> 405
 <212> DNA
 <213> Homo sapiens

<400> 210
 atctacatga ggtcctgtag attgagcaac tttggctatt tgggtagctg atccactgcc 60
 aagctggctc ccagctacca cctgttactt tgacaactct agcttcaggg ctaccaggac 120
 catttgcaaa acttacaccc acagaaaact caaagtctcc agaggcataa gctccaaccc 180
 ccagagagct ccacagcatt cttctccttc tagtagtact tttggtttcc aggaaaatca 240
 tctcatgctc gggccacagt cacagtcctg accagcacca tagaaatttc agccattatt 300
 ctagttgtat ggagtcattc aaaatactag ttccgaaaga agtttcaaag gtccaacgcc 360
 gagcatcttt tacctttgct aatttttcca taaattgaaa gcctt 405

<210> 211
 <211> 1028
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(1028)
 <223> n = g, a, c or t

<400> 211
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 ttaaatttcc cgggcggggc gnaaccccg gacacaacgg gcaaacttgt acaatttttg 180
 tggggancaa caaccgggac acaanttttt ggggnaatgg cgccacaaaa aaanaaacca 240
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 gcgcctctcg cttgtgcccgc ccccttctcc ccaaangggg ggcggcgctg ttttttcccc 360
 aacacgggcg tggggcccaa aaaaaattgt gggcgcccaa agaaaaaata ttttaataaa 420
 acagaggcgg cccccacaa cacaggcggg tntgggggaa caggaaacca acacaacgac 480
 aacacggcgc tggcggcaac aagcaaacac gggagcaaac aaaacacggg cggaagaaa 540
 ccacacgggc gaaacgactt ttataacaaa cacttttgtt ggggcgcaaa cagcacacac 600
 acaacaaaaa tgggcgcccc ccccnccga gggggccac aaaggncgaa gagaaaaaac 660
 ccccccccc caaaaagaga gcgcccgcga aacaaccacc aaaaaaggg gaggagtttg 720
 gagagcaggg cgagangttt ttttatatta aaacagggc nacgaaaaca tcattttata 780
 aatagggcag gcaaaaaaca cgatttataa tatttcaaca gaaaacaggg ntggcctctg 840
 ggggttttgt gtgtgtgctt cccnaccggt ggtgcgcgtg ttttccctcc tggtgnggaa 900
 aaaagacacc tgttttataa aagaggagng tatnccncc tttttgtggg tgcgaaaaac 960

agacgngagg cgggangatn tatcccactc ttttggtggt gcaacaagtg ttttatatag 1020
nataacctg 1028

<210> 212
<211> 236
<212> DNA
<213> Homo sapiens
<220>
<221> modified_base
<222> (1)...(236)
<223> n = g, a, c or t

<400> 212
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gggccgcagt gccagncac agagcagcgt ttatctggga cgaagatgaa tggaaagaat 120
tgagagcaaaa agaggttgat tacagcgggc tcanggggtc aggcgaatgc aaataagcac 180
gtgaaaagga agaagacgat aatgaaaagc cgcagaaacc agcacagtgg ttagat 236

<210> 213
<211> 315
<212> DNA
<213> Homo sapiens

<400> 213
caagccggtg cagcggttgt cagtgtgctg ggtctgcggg cggttgcttcg gcggttagcca 60
agccggggcg cggccacctc cggggggggg gccactaggt ctggggccgc agtgcccagc 120
acagagcagc ggtttatcgg gacgaagaat gaattggaaa gaattggagc aaaaagaggt 180
tgataacagc ggcctcaggg gttcaggcaa tgcaaataag cagtgaaaag gaagaagacg 240
ataatgaaaa gccgcagaaa ccagcacagt ggtagatag ataaagcggg cgctcgacta 300
gtctgaggtc tgata 315

<210> 214
<211> 193
<212> DNA
<213> Homo sapiens

<400> 214
gcgtgctcgg cgtagccaa tgcccgggcg gcgccacctc cggggggcact aggtcttggg 60
gccgcagtgc ccagcacaga gcagcgttta tcgggacgaa gatgaatgga aagaattgga 120
gcaaaaagag gttgattaca gctggcctca gggggttcag gcaatgcaaa taagcagtga 180
aaaggaagaa gac 193

<210> 215
<211> 203
<212> DNA
<213> Homo sapiens

<400> 215
gcgtcgtcgc gcggttagcca agggcccggg ggcgccaccc tccgggggca ctaggtctgg 60
ggccgcagtgc ccagcacag agcagcgttt atcgggacga agatgaatgg aaagaattgg 120
agcaaaaaga ggtagattac agcggtcag ggggttcaggc aatgcaaata agcagtgaaa 180
aggaagaaga cgataatgaa aag 203

<210> 216
<211> 204
<212> DNA
<213> Homo sapiens

<400> 216
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agcaaaaaaga	ggttgattac	agcgggcctca	ggggttcagg	caatgcaa	aagcagtga	180
aaggaagaag	acgataatga	aaag				204

<210> 217
 <211> 203
 <212> DNA
 <213> Homo sapiens

<400> 217						
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gctgtaata	acctctttt	gctccaatt	tttccatt	tcttcgtccc	gataaacgct	120
gctctgtgt	gggcactgc	gccccagac	tagtgcccc	ggagggtgg	gccgcccggg	180
cctcggctaa	cgccgagcga	cgc				203

<210> 218
 <211> 204
 <212> DNA
 <213> Homo sapiens

<400> 218						
gcgtcgtctg	gcgttagcca	aggccccggg	ggcgccaccc	tccgggggca	ctaggtctgg	60
ggccgcagt	cccagcacag	agcagcgttt	atcggggacga	agatgaatgg	aaagaattgg	120
agcaaaaaaga	ggttgattac	agcgggcctca	ggggttcagg	caatgcaa	aagcagtga	180
aaggaagaag	acgataatga	aaag				204

<210> 219
 <211> 527
 <212> DNA
 <213> Homo sapiens

<400> 219						
cttgccattc	cactccagcc	tgggcaacga	gagcgaaact	ctgtctcaaa	aagaaaagaa	60
aaggaaaagaa	aaaccacctc	ccaccagggt	aaataaataa	ttaacatttt	ggtatgtacc	120
cttccagaca	ttttcctatg	catcacatca	ataaatatat	gataggatat	tttacatttg	180
atgtatcctg	aagattaatt	caacaaatgt	ttagtgagta	ggcttggtgt	aggtgctggg	240
aattcagcag	tgaacaaaac	aaagtctctg	cctcatggag	ctcatattat	agtaggggaag	300
actgtcaata	agcaatatac	acattgacta	aatgatagat	aatgcccagt	aatgtggcaa	360
gttttatgga	aaaataaatc	aggataaaaag	gataagagtg	atatggggat	tctcttagtt	420
agggtagata	aggaaggcct	cttagctaag	gaggcacata	aatatctgat	catctaata	480
gagaaggagc	aacatgggat	ttctagaggg	aaactatcct	agaaaaga		527

<210> 220
 <211> 645
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(645)
 <223> n = g, a, c or t

<400> 220						
ctgcttctct	tctaggatag	tttccctcta	gaaatccatg	ttgctccttc	tctcatta	60
tgatcagata	tttatgtgcc	tccttagcta	agaggccttc	cttatctacc	ctaactaaga	120
gaatcccat	atcactctta	tccttttatc	ctgatttatt	tttccataaa	acttgccaca	180
ttactgggca	ttatctatca	tttagtaatg	tgtatattgc	ttattgacag	tcttccttac	240
tataatatga	gctccatgag	gcagagactt	tgttttgttc	actgctgaat	tcccagcacc	300
tacaacaagc	ctactcacta	aacatttggt	gaattaatct	tcaggatata	tcaaatgtaa	360
aaatatccta	tcatatattt	attgatgtga	tgcataggaa	aatgtctgga	agggtacata	420
ccaaaatggt	aattatttat	ttaacctggg	gggagggtgga	ttatttcttt	ccttttcttt	480

ctttttgaga	ccagagtttc	cgcattcttcg	ttgccccagg	ctgggagtg	aaattgggca	540
aagcccgag	aaacccaag	caacaagtgg	gttttagatag	natcaaagcg	ggccgctcga	600
cttaantcct	tgaaggtctg	attactcaac	ctgacttgtc	agaaa		645

<210> 221
 <211> 613
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(613)
 <223> n = g, a, c or t

<400> 221						
cttgccattc	cactccagcc	tgggcaacga	gagcgaaact	ctgtctcaaa	aagaaaagaa	60
aaggaaaagaa	aaaccacctc	ccaccagggt	aaataaataa	ttaacatttt	ggtatgtacc	120
cttccagaca	ttttcctatg	catcacatca	ataaatatat	gataggatat	tttacatttg	180
atgtatcctg	aagattaatt	caacaaatgt	ttagtgagta	ggcttggtgt	aangtgctgg	240
gaattcagca	gtgaacaaaa	caaagtctct	gcctcatgga	gctcatatta	tagtagggaa	300
gactgtcaat	aagcaatata	cacattacta	aatgatagat	aatgccag	aatgtggcaa	360
gttttatgga	aaaattaatc	aggataaagg	ataagagtga	tatggggatt	ctcttaatta	420
gggtagatna	ggaagggtc	tttagctnaa	ggaagcaaca	taaatatctg	atcattttaa	480
aanggggaag	aacgaaaaag	gggaaagcca	aaacacaaat	gggggacaat	ttatacctta	540
cgaaaaaggg	gaaaaaacca	taaaatccc	taaggaaaca	naaaagcaaa	agcncaaaga	600
ccagcaaaaa	caa					613

<210> 222
 <211> 415
 <212> DNA
 <213> Homo sapiens

<400> 222						
cttgccattc	cactccagcc	tgggcaacga	gagcgaaact	ctgtctcaaa	aagaaaagaa	60
aaggaaaagaa	aaaccacctc	ccaccagggt	aaataaataa	ttaacatttt	ggtatgtacc	120
cttccagaca	ttttcctatg	catcacatca	ataaatatat	gataggatat	tttacatttg	180
atgtatcctg	aagattaatt	caacaaatgt	ttagtgagta	ggcttggtgt	aggtgctggg	240
aattcagcag	tgaacaaaac	aaagtctctg	cctcatggag	ctcatattat	agtagggaag	300
actgtcaata	agcaatatac	acattactaa	atgatagata	atgccagta	atgtggcaag	360
tttatatgga	aaaataaatc	aggataaaaag	gataagagt	atatggggat	tctct	415

<210> 223
 <211> 713
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(713)
 <223> n = g, a, c or t

<400> 223						
ctgcttctct	tctaggatag	tttccctcta	gaaatccatg	ttgctccttc	tctcattaaa	60
tgatcagata	tttatgtgcc	tccttagcta	agaggccttc	cttatctacc	ctaactaaga	120
gaatcccat	atcactctta	tccttttata	ctgatttatt	tttcataaaa	acttgccaca	180
ttactgggca	ttatctatca	tttagtaatg	tgtatattgc	ttattgacag	tcttccctac	240
tataatatga	gtcccatgag	gcagagactt	tgttttgttc	actgctgaat	tcccagcacc	300
tacaacaagc	ctactcacta	aacatttggt	gaattaatct	tcaggatata	tcaaagttaa	360
aatatcctat	catatatatta	ttgatgtgat	gcataaggaaa	atgtctggaa	gggtacatac	420
caaaaatgta	attattttat	taacctgggtg	ggaggtgggt	tttctttcct	tttcttttct	480
ttttgagaca	gagtttacgc	tctcgtgtgc	ccaggcctgg	agtggaatgg	caagccgcag	540

aanccagcac	agtgggttang	atnaattaaa	gcgggcnagt	ccaataagtc	tgaaggctga	600
aacacacaca	cagagacggt	cacaaagggc	gaaatncggc	aaaatnccat	cccactgggg	660
gccgcatac	aaaatgnatn	gagaagggga	ccaaatggcc	aaagangagc	gat	713

<210> 224
 <211> 462
 <212> DNA
 <213> Homo sapiens

<400> 224						
ctgcttctct	tctaggatag	tttccctcta	gaaatccatg	ttgctccttc	tctcattaaa	60
tgatcagata	tttatgtgcc	tccttagcta	agaggccttc	cttatctacc	ctaactaaga	120
gaatccccat	atcactctta	tcctttttatc	ctgattttatt	tttccataaa	acttgccaca	180
ttactgggca	ttatctatca	tttagtaatg	tgtatattgc	ttattgacag	tcttccctac	240
tataattatg	agctccatga	ggcagagact	ttgttttggt	cactgctgaa	ttcccagcac	300
ctacaacaag	cctactcact	aaacatttgt	tgaattaatc	ttcaggatac	atcaaagtga	360
aaatatccta	tcatatattt	attgatgtga	tgcataaggaa	aatgtctgga	agggtacata	420
ccaaaatggt	aattattttat	ttaacctggt	gggaggtggt	aa		462

<210> 225
 <211> 599
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(599)
 <223> n = g, a, c or t

<400> 225						
ctgcttctct	tctaggatag	tttccctcta	gaaatccatg	ttgctccttc	tctcattaga	60
tgatcagata	tttatgtgcc	tccttagcta	agaggccttc	cttatctacc	ctaactaaga	120
gaatccccat	atcactctta	tcctttttatc	ctgattttatt	tttccataaa	acttgccaca	180
ttactgggca	ttatctatca	tttagtaatg	tgtatattgc	ttattgacag	tcttccctac	240
tataatatga	gctccatgag	gcagagactt	tgttttgttc	actgctgaat	tcccagcacc	300
tacaacaagc	ctactcacta	aacatttgtt	gaattaatct	tcaggataca	tcaaagttaa	360
aatatcctat	catatattta	ttgatgtgat	gcataggaaa	atgtctggaa	gggtacatac	420
caaaatgtta	attattttatt	taacctgggtg	ggaggtgggt	tttctttcct	tttcttttct	480
tattgagaca	gagtttcgct	ctcgttgccc	cggctggaag	tgggaatggca	agccggcagg	540
aaccaagac	aacaaggagg	ttaagatcag	aataaaagac	ggggaccgca	tccagaaac	599

<210> 226
 <211> 537
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(537)
 <223> n = g, a, c or t

<400> 226						
cttgccattc	cactccagcc	tgggcaacga	gagcgaaact	ctgggtctcaa	aaagaaagga	60
aaaggaaaga	aaaaccacct	cccaccaggg	ttaaataaat	aattaacatt	ttgggtatgta	120
cccttccagg	acatttttct	atgcatacaca	tcaataaata	tatgatagga	tattttacat	180
ttgatgtatc	ctgaagatta	attcaacaaa	tgtttagtga	gtaggcntgt	tagtaggtgc	240
tgggaattca	gcagtgaaca	aaacaaagtc	tctgcctcat	ggagctcata	ttatagtagg	300
gaagactgtc	aataagcaat	atacacatta	ctaaatgata	gataatgccc	agtaatgtgg	360
caagttttat	ggaaaaatna	atcaggataa	aaggataaga	gtgatatggg	gattctnctt	420
agattagggt	agataaagga	angcctctta	gnctnaagag	gccacataaa	caaaatcaat	480
tccttgggaa	aatccaanct	gnctaaacgt	agacaggggac	aagcaanagg	cggacgg	537

<210> 227
 <211> 531
 <212> DNA
 <213> Homo sapiens

<400> 227
 ctgcttctct tctaggatag tttccctcta gaaatccatg ttgctccttc tctcattaata 60
 tgatcagata tttatgtgcc tccttagcta agaggccttc cttatctacc ctaactaaga 120
 gaatcccat atcactctta tccttttata ctgatttatt ttccataaa acttgccaca 180
 ttactgggca ttatctatca tttagtaatg tgtatattgc ttattgacag tcttccttac 240
 tataatatga gtcctcatgag gcagagactt tgttttggtc actgctgaat tcccagcacc 300
 tacaacaagc ctactcacta aacatttggt gaattaatct tcaggatata tcaaagttaa 360
 aatatcctat catatattta ttgatgtgat gcataggaaa atgtctggaa gggtagatac 420
 caaaatgtta attatttatt taacctgggt ggagggtggt tttctttcct tttcttttct 480
 ttttgagaca gaggttcgct ctcgttgccc aggctggagt ggaatggcaa g 531

<210> 228
 <211> 336
 <212> DNA
 <213> Homo sapiens

<400> 228
 gcttgcaaag gagaggctgt gactaccaag gtcgtgtcaa caactgaatg gctgaaatac 60
 ccaaacttgc ccatgcaaat gggcttgggt ctctcctggc agccgccttt gaaggctcta 120
 gacttatctg tgaactcctt ttttgagagg gtctttccaa ctagtgggtt attctttgac 180
 tctcctcata ctttttttgc cagagagtga gaggtagaag ggagggctaa tgcctgagct 240
 cctgcccttt ctatgcagtg agggcacaaga tctcagcta gtgtttgagg gaactgggtg 300
 aacctgggtc tctcattttc taccatccaa gttgcc 336

<210> 229
 <211> 336
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(336)
 <223> n = g, a, c or t

<400> 229
 ggcaacttgg atggttagaaa atgagagacc caggttacac caggttccct caaacactag 60
 ctgaggatct tgaccctcac tgcntagaaa gggcaggagc tcaggcatta gccctccctt 120
 ctactctca ctctctggca aaaaaggatg gaggagagtc aaagaataaa ccactagtgtg 180
 gaaagaccct ctcaaaaaag gagttcacag ataagtctag agccttcaaa ggcggctgcc 240
 aggagagacc caagcccatt tgcattggga agtttggtga tttcagccat tcagttgttg 300
 acacgacttg gtagtcacag cctctccttt gcaagc 336

<210> 230
 <211> 335
 <212> DNA
 <213> Homo sapiens

<400> 230
 gcttgcaaag gagaggctgt gactaccaag tctgtgtcaac aactgaatgg ctgaaatacc 60
 caaacttgcc catgcaaatg ggcttgggtc tctcctggca gccgcctttg aaggctctag 120
 acttatctgt gaactccttt tttgagaggg tctttccaa tagtggttta ttctttgact 180
 ctctcatac ctttttttgc agagagtga agtgagaagg gagggctaag gcctgagctc 240
 ctgccctttc tatgcagtga gggcacaagt cctcagctag tgtttgaggg aactgggtga 300
 gcctgggtct ctcatcttct accatccaag ttgcc 335

<210> 231
 <211> 249
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(249)
 <223> n = g, a, c or t

<400> 231							
ggcaacttgg	atggtagaaa	atgagagacc	caggctacac	cagnttcacct	caaacactag		60
ctgaggatct	tgacctcac	tgcataaaaa	gggcaggagc	tcaggcatta	gccctccctt		120
ctcactctca	ctctctggca	aaaaaggtat	gaggagagtc	aaanaataaa	ccactanttg		180
ganagaccct	ctcaanaaag	gagttcacag	ataantntat	agccttcaaa	ggcggctgcc		240
aggagagac							249

<210> 232
 <211> 335
 <212> DNA
 <213> Homo sapiens

<400> 232							
gcttgcaaag	gagaggctgt	gactaccaag	tcgtgtcaac	aactgaatgg	ctgaaatacc		60
caaacttgcc	catgcaaagt	ggcttgggtc	tctcctggca	gccgcctttg	aaggctctag		120
acttatctgt	gaactccttt	tttgagaggg	tctttccaac	tagtggttta	ttctttgact		180
ctcctcatac	cttttttgcc	agagagttag	agtgagaagg	gagggctaag	gcctgagctc		240
ctgccctttc	tatgcagtga	gggtcaagat	cctcagctag	tgtttgaggg	aactggtgta		300
acctgggtct	ctcatcttct	accatccaag	ttgcc				335

<210> 233
 <211> 778
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(778)
 <223> n = g, a, c or t

<400> 233							
ctggccgcac	gcagctcttt	tcctggggat	cccagatggt	tgtgcgctgg	gggcctggcg		60
gaggctccag	tcgggttggg	tggtgtgtgc	cgctgccatg	tttgtgtggt	gcctggcccc		120
gtggtcccat	gttctggcag	cttctggctc	cagcctcagc	ctgtagtggg	gtgttacgtg		180
gtagnagagt	cggtagctgg	gggcctgcag	tggtgttagg	cagtggtagg	agtgcagnta		240
gcatagaagt	tanaaaggtt	actagtagag	actggtccca	tacttagaga	tggtgacacca		300
tgacctgatg	gntacnacc	tgacaggccg	cagaaaccag	acacactgga	gccaccgact		360
gacacaacgg	gccttgggna	cggacgtcca	atngcgtatg	antaccanga	cagtcaggan		420
ccccaaatga	cccgggaagca	ggaaacgggg	cagaaaaaan	caatagccaa	ggaatagtca		480
canggtcgac	anaacctgng	cagggaccag	naaaccagaa	ngaccaatgc	acantacata		540
agaagggggg	gggcacncca	caaaagatat	gccggggcgac	gccagataag	ataagggact		600
aggggaaggag	tcgggnaaa	natgtaacga	aagagtatcg	aaccaatgga	gggncgccgg		660
gtacccgngc	gnaaggacaa	acaanaagca	ggcatccgga	ctgggaacca	atggggggga		720
aagaagcagc	gcccccatgg	gganagggat	gtaaanccac	aacaacacgt	gtnaaacg		778

<210> 234
 <211> 659
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(659)
 <223> n = g, a, c or t

<400> 234
 aattgaantt acactcacta tagggcgaat tgggcctcta gatgcatgct cgagcggccg 60
 ccagtgtgat ggaatatctg cagaattcgc ctttctctcg gcatggacga gctgtacaag 120
 gaggaggccg caaggccggt ggcagcgggt gctccaagtg gtggccttgg gggttcttgc 180
 ggctgcaggg agaccacagg caggtgcccc cctaagaggg acagccacag aaaccctcta 240
 acctcagcac tgcactccac cacgaacacc ccacgcaggc cctcaggcaa cccggcaacc 300
 ttccaaacca acggaacacc ccacacaggc tgaggctgga gccagaagcc gccagaacat 360
 gggaccacag ggccaggcac cacacaaaca tggcgacgga cacagccaat ccaaaccccc 420
 ggaaaaaccg atttccnccg ngggggaaaa accgccccag tttccacccc cgggagagcg 480
 ccccaaaagg gggggggnac acccaccac ncaccccaaa ggggncgcag gggccaaaca 540
 gcagaaancc ccgaanttcc cttgcggggg gaattcgccg cgcccaaagg ggaacnagca 600
 aggaaggcca ttgccgggtg ccgggccccaa gcaccgcccag gaacagcgcg caaggcgac 659

<210> 235
 <211> 295
 <212> DNA
 <213> Homo sapiens

<400> 235
 ctgcagggag accacaggca ggtgcccacc taagagggac agccacagaa accctctaac 60
 ctcagcactg cactccacca cgaccacccc acgcaggccc tcagcaccgc actccaccac 120
 gaacacccca cacaggctga ggctggagcc agaagctgcc agaacatggg accacagggc 180
 caggcaccac acaaacatgg cgacggacac agccatccaa cccgactcgg acctccgcca 240
 ggcccccagc gcacaacccat ctgggatccc caggaaaaga gctgcgtgcg gccag 295

<210> 236
 <211> 296
 <212> DNA
 <213> Homo sapiens

<400> 236
 gctggccgca cgcagctctt ttcctgggga tcccagatgg ttgtgcgctg ggggcctggc 60
 ggaggtccga gtccgggttg atggctgtgt ccgtcgccat gtttgtgtgg tgcttgccc 120
 tgtgttccca tgttctggca gcttctggtt ccagcctcag cctgtgtggg gtgttcgtgg 180
 tggagtgcgg tgctgagggc ctgctgtggg tggctgtggt ggagtgcagt gctgaggtta 240
 gagggtttct gtggctgtcc ctcttaggtg ggcacctgcc tgtggtctcc ctgcag 296

<210> 237
 <211> 295
 <212> DNA
 <213> Homo sapiens

<400> 237
 ctgcagggag accacaggca ggtgcccacc taagagggac agccacagaa accctctaac 60
 ctcagcactg cactccacca cgaccacccc acgcaggccc tcagcaccgc actccaccac 120
 gaacacccca cacaggctga ggctggagcc agaagctgcc agaacatggg accacagggc 180
 caggcaccac acaaacatgg cgacggacac agccatccaa cccgactcgg acctccgcca 240
 ggcccccagc gcacaacccat ctgggatccc caggaaaaga gctgcgtgcg gccag 295

<210> 238
 <211> 327
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(327)
 <223> n = g, a, c or t

<400> 238
 ctggccgcac gcagctcttt tcctggggat cccagatggt tgtgcgctgg gggcctggcg 60
 gaggtccgag tcgggttgga tggctgtgtc cgtcgccatg tttgtgtggt gcctggccct 120
 gtgggtcccat gttctggcag cttctggctc cagcctcagc ctgtgtgggg tgttcgtggt 180
 ggagtgcggt gctgagggcc tgcgtggggg ggtcgtggtg gagtgcagtg ctgagggtan 240
 agggtttctg tggctgtccc tcttaggtgg gcacctgcct gtggtctccc tgcagccgca 300
 aaacccanca cactggagcc accgctg 327

<210> 239
 <211> 295
 <212> DNA
 <213> Homo sapiens

<400> 239
 ctggccgcac gcagctcttt tcctggggat cccagatggt tgtgcgctgg gggcctggcg 60
 gaggtccgag tcgggttgga tggctgtgtc cgtcgccatg tttgtgtggt gcctggccct 120
 gtgggtcccat gttctggcgg cttctggctc cagcctcagc ctgtgtgggg tgttcgtggt 180
 ggagtgcggt gctgagggcc tgcgtggggg ggtcgtggtg gagtgcagtg ctgagggttag 240
 agggtttctg tggctgtccc tcttaggtgg gcacctgcct gtggtctccc tgcag 295

<210> 240
 <211> 554
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(554)
 <223> n = g, a, c or t

<400> 240
 ctgcagggag acccgaggc aggtgccccac ctaaggggga cagctacaga aaccctctaa 60
 ctcagcactg nactccacca cgacacccca cgcaggccct cagcaccgca ctccaccacg 120
 aacaacccac acaggctgag tgctggagcc agaagctggc agaacatggg accacagggg 180
 ccaggcacca cacaacatg gcgacggaca caggcatnca aaccgactcg gacctccgcc 240
 agnccccag cgcacaaaca tctgggatcc ccaggaaaag agctgcgtgc gggcagcgca 300
 gaaaccagca cagtgggttag atatgattaa gcgggcgngt cgantaatct gaggtctgat 360
 actcactgac tgtcgtaagg gngaattcgc gggcgcgtaa attcaattcg gcctatagtg 420
 agtcgtatta caattcactg ggcggcggtt tacaacgtct gtgactggga aaaacctgng 480
 cgttatccaa cttaatctgn gcttggagaa tttccctttt gcagactggg cgtaataacg 540
 aaaaagggnc cgaa 554

<210> 241
 <211> 294
 <212> DNA
 <213> Homo sapiens

<400> 241
 ctgcagggag acacaggcag gtgcccacct aagaggggaca gccacagaaa ccctctaacc 60
 tcagcactgc actccaccac gaccacccca cgcaggccct cagcaccgca ctccaccacg 120
 aacacccac acaggctgag gctggagcca gaagctgcca gaacatggga ccacagggcc 180
 aggcaccaca caaacatggc gacggacaca gccatccaac ccgactcgga cctccgccag 240
 gccccagcg cacaaccatc tgggatcccc aggaaaagag ctgctgctgc ccag 294

<210> 242
 <211> 293
 <212> DNA
 <213> Homo sapiens

<400> 242
 ctgcaggaga cgcgaggcag gtgcccacct aagggggaca gctacagaaa ccctctaacc 60
 tcagcactgc actccaccac gaacacccca cgcaggccct cagcaccgca ctccaccacg 120
 aacaccccac acaggctgag gctggagcca gaagctggca gaacatggga ccacaggggc 180
 caggcaccac acaaacatgg cgacggacac agccatccaa cccgactcgg acctccgcca 240
 ggcccccagc gcacaacatc tgggatcccc aggaaaagag ctgcgtgcgg cag 293

<210> 243
 <211> 293
 <212> DNA
 <213> Homo sapiens

<400> 243
 ctgcaggaga cacaggcagg tgcccaccta agagggacag ccacagaaac cctctaacct 60
 cagcactgca ctccaccacg accaccccac gcaggccctc agcaccgcac tccaccacga 120
 acaccccaca caggctgagg ctggagccag aagctgccag aacatgggac cacagggcca 180
 ggcaccacac aaacatggcg acggacacag ccacccaacc cgactcggac ctccgccagg 240
 cccccagcgc acaaccatct gggatcccca ggaaaagagc tgcgtgcggc cag 293

<210> 244
 <211> 400
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(400)
 <223> n = g, a, c or t

<400> 244
 ccgcagtgga gacacaggca ggtgcccacc taagaggggac agccacagaa accctctaac 60
 ctcagcactg cactccacca cgacacccac gcaggccctc agaccgcact ccaccacgaa 120
 aaacccacac aggcgtgagg ctggagccag aagctgccag aacatgggan cacagggnga 180
 ggcgaccaca caaacatggc gacgtgacac aggcacccaa accgacatcg gactccgcag 240
 ggccccagcg cacaacata ctgggatccc cagggaaaag agctgcgtgc tgggcagnag 300
 cgcnagaaac cagcacagct ggttagagta cagataaana cgggcgcgtc gcacgtaaan 360
 ctgaaaaagg tcgtgagtat aatcaacatg tanactgntt 400

<210> 245
 <211> 690
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(690)
 <223> n = g, a, c or t

<400> 245
 ctgcagggga gaccacaggc aggtgcccac ctaagaggga cagccacaga aaccctctaa 60
 cctcagcact gcactccacc acgancaccc cagcaggcc cccagcaccg cactccacca 120
 cgaaacaccc caacacaggc tgaggctgga gccagaagct ggccagaaca tgggaccaac 180
 gngcgggncc ccaacgcngg gcgggcccag aacgaccgaa aagcgaaacc caaaagaag 240
 nngcgcaaat tatgcagacc aggaaaccag atgaaaacaa accaaaggcg accaaatacc 300
 ccaaaaananc accgcncagg aaagcatata cgcggggaaa cgcccagttc caccacaggg 360
 gccccacaag gagggggaccc nccaccnacg ngcaggggca cgggccagca gacagcgaga 420

gcgccgcgaa	gtaccgatta	ggaggcggcg	aatacccgac	caccaaaaaa	gggggaaaca	480
cgaaagaaaag	ctgggaaaac	ggccccgattt	taggaccacg	ggagtttgac	cgcacggggga	540
gacgcccccc	caaagggaca	ccccagagg	cacaaaaaagc	aagaagacac	cccccccaa	600
agagaccgct	caagaccga	aagagggttg	agcggcttcc	ttaacagagg	aagcttaacn	660
cggcacagtt	naaacgaagg	gcgagtgggc				690

<210> 246
 <211> 205
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (294)
 <223> n = g, a, c or t

<400> 246						
ctggccgcac	gcagctcttt	tcctggggat	cccagatggt	tgtgcgctgg	gggcctggtg	60
gaggtccgag	tcgggttgga	tggctgatgt	ccgccgccat	gatttgatag	atggatgcct	120
ggaccctgat	gagtcccaat	gattctggca	gacattctgg	acatccagca	catcagacct	180
gatgatgggg	atgnttcgat	ggatg				205

<210> 247
 <211> 358
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(358)
 <223> n = g, a, c or t

<400> 247						
ctggccgcac	gcagctcttt	tcctggggat	cccagatggt	tgtgcgctgg	gggcctggcg	60
gaggtccgag	tcgggttgga	tggctggctg	cgcagtgggtg	gtgcctggcc	tgggcctgtc	120
tggcagcttc	tggctccagc	ctcagccctg	tgtggggctg	gttccgntgg	tggagtgcgg	180
gtgctgaagg	ccatgcgatg	gagagtggat	cnaggaagga	gatgcagaag	catagagagt	240
tacgagggta	tctagtggct	gtaccctcta	taggtagggc	accatgacac	tagatgggtac	300
tnccttgaca	gaacgcaaga	aacaccaaga	aaaacctgag	aggccaacca	gaaatgac	358

<210> 248
 <211> 294
 <212> DNA
 <213> Homo sapiens

<400> 248						
ctgcaggaga	ccacaggcag	gtgcccacct	aagagggaca	gccacagaaa	ccctctaacc	60
tcagcactgc	actccaccac	gaccaccca	cgcaggccct	cagcaccgca	ctccaccacg	120
aacaccccac	acaggctgag	gctggagcca	gaagctgcca	gaacatggga	ccacagggcc	180
aggcaccaca	caaacatggc	gacggacaca	gccatccaac	ccgactcgga	cctccgccag	240
gccccccagcg	cacaaccatc	tgggatcccc	aggaaaagag	ctgcgtgcgg	ccag	294

<210> 249
 <211> 518
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(518)
 <223> n = g, a, c or t

```

<400> 249
actagttcta gatcgcgagc ggcgcctttt tttttttttt ttttaaaaag tctatatattt 60
tatattgggg ggagggagta gaaaagcaag cccctatact gggccctatt cagtggcagc 120
ttcttgttcc ataggattaa ggaagactct gaggaataa aagttgtttg gaaaaatcca 180
ggtgtagttg ctttgatatgt tgtgatgggt agaagggatg aagtgaagtg tgaaggccct 240
cataacctcc atcttgccctc aggactatag tcctggaacc ctnggggcgg agaaaagcgc 300
caacatttca tncctgcata cataagggag aaggagacag gacaacgata agtgaaagag 360
aacagaacaa gcaagaaaag aagcgganaa cggccccaga caatagtaag ggccaangaa 420
tgggcagaag ncttgcaanc gtncccgggg gcaatacaat cccttgaaca caaganccag 480
ggcannccgg gaccacgcaa gaaaaccaag aaacacat 518

```

<210> 250

<211> 592

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(592)

<223> n = g, a, c or t

```

<400> 250
gcccagagccg gactgggtcag gatgatcacc ggacgcgcag ctgcgccatct tcgccaacat 60
gctggggcgtg tgctctcttct tgcttgctgt tctctatcac tacgtggccg tcaacaatcc 120
caagaagcag tgaatgaaag tggcgctttc tccgggccca gggttccagg acatagtctg 180
agtgaagat ggaggggtatg agggggcttc acacttcact tcctcctttt aaccattaaa 240
atacaaagcg aactacanct ggatttttcc aaacaaattt tatttctca gagtcttcct 300
taatcctatg gaacaagaag ctggcactga atagtgggcc agtatagggg cttgcgtttt 360
ctanatccct tcccccaata ttaaaatata tgacttttaa aaaaaaaaaa aaaagggngc 420
cggtcgcgat ctagaactag tccggagaaa ccagacagtt ggtagatag ataaagcggc 480
gcgtcgacta ntctgaggtc tgatactcac tgactgtcgt aagggcgaat tcgtttttaa 540
cctgcaggac tagtcccttt atgaggggta attctgagct tggcgtaatc at 592

```

<210> 251

<211> 439

<212> DNA

<213> Homo sapiens

```

<400> 251
gccgagccgg actgggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc 60
tgggcgtgtc gctcttcttg cttgtcgttc tctatcacta cgtggccgtc aacaatccca 120
agaagcagga atgaaagtgg cgctttctcc gcccagggt tccaggacat agtctgaggc 180
aagatggagg gtatgagggg ccttcacacg ttacttcag tcccttctac ccatacacaac 240
atacaaggca actacacctg gatttttcca aacaactttt atttcctcag agtcttcctt 300
aatcctatgg aacaagaagc tgccactgaa tagggcccag tataggggct tgcttttcta 360
ctccctcccc ccaatataaa aatatagact tttaaaaaaaa aaaaaaaaaa aagggcgccg 420
ctcgcgatct agaactagt 439

```

<210> 252

<211> 387

<212> DNA

<213> Homo sapiens

```

<400> 252
gccgagccgg actgggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc 60
tgggcgtgtc gctcttcttg cttgtcgttc tctatcacta cgtggccgtc aacaatccca 120
agaagcagga atgaaagtgg cgctttctcc gcccagggt tccaggacat agtctgaggc 180
aagatggagg gtatgagggg ccttcacact tcacttcact ccttctaccc atcacaacat 240
acaaagcaac tacacctgga tttttccaaa caacttttat ttcctcagag tcttccttaa 300
tctatggaa caagaagctg ccactgaata gggcccagta taggggcttg cttttctact 360
ccctcccccc aatataaaaa tatagac 387

```

```

<210> 253
<211> 208
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(208)
<223> n = g, a, c or t

<400> 253
actagttcta gatcgcgagc ggcgcccttt tttttttttt ttttaaaagt ctatattttt    60
atattggggg gagggagtag aaaagcaagc ccctatactg ggcctattc agtggcagct    120
tcttgttcca taggattaag gaagactctg aggaaataaa agttgttttg aaaaatccag    180
gtgtagttgc ttntgntatg ttgtgatg                                208

<210> 254
<211> 473
<212> DNA
<213> Homo sapiens

<400> 254
actagttcta gatcgcgagc ggcgcccttt ttttttttta aaagtctata tttttatatt    60
gggggggaggg agtagaaaaag caagcccta tactgggccc tattcagtgg cagcttcttg    120
ttccatagga ttaaggaaga ctctgaggaa ataaaagttg tttggaaaaa tccagggtga    180
gttgctttgt atgttgtgat gggtagaagg gatgaagtga agtgtgaagg cccctcatac    240
cctccatctt gcctcagact atgtcctgga accctggggc ggagaaagcg ccactttcat    300
tcctgcttct tgggattgtt gacggccacg tagtgataga gaacgacaag caagaagagc    360
gacacgcca gcatgttggc gaagatggcg agctgcacgt ccgtgatcat cctgaccagt    420
ccggctcggc ccgcagaaac cagcacactg gagccaccgc tgccaccggc ctt          473

<210> 255
<211> 470
<212> DNA
<213> Homo sapiens

<400> 255
gccgagccgg actggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc    60
tgggcgtgtc gctcttcttg cttgtcgttc tctatcacta cgtggccgtc aacaatccca    120
agaagcagga atgaaagtgg cgctttctcc gccccagggt tccaggacat agtctgaggc    180
aagatggagg gtatgagggg ccttcacact tcacttcacat ccttctaccc atcacaacat    240
acaaagcaac tacacctgga tttttccaaa caacttttat ttcctcagag tcttccttaa    300
tcctatggaa caagaagctg ccactgaata gggcccagta taggggcttg cttttctact    360
ccctccccc aatataaaaa tatagacttt taaaaaaaaa aaaaaaaggg cgccgctcgc    420
gatctagaac tagtccgcaa aaccacagcac agtggttaga tagataaagc          470

<210> 256
<211> 208
<212> DNA
<213> Homo sapiens

<400> 256
actagttcta gatcgcgagc ggcgcccttt tttttttttt tttaaaagtc tatattttta    60
tattggggggg agggagtaga aaagcaagcc cctatactgg gccctattca gtggcagctt    120
cttgttccat aggattaagg aagactctga ggaaataaaa gttgtttgga aaaatccagg    180
tgtagttgca tataagtatg ttgtgata                                208

<210> 257
<211> 435
<212> DNA
<213> Homo sapiens

```

```

<400> 257
gccgagccgg actggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc      60
tgggcgtgtc gctcttcttg cttgtcgttc tctatcacta cgtggccgtc aacaatccca      120
agaagcagga atgaaagtgg cgctttctcc gccccagggt tccaggacat agtctgaggc      180
aagatggagg gtatgagggg ccttcacact tcacttcac ctttctaccc atcacaacat      240
acaaagcaac tacacctgga tttttccaaa caacttttat ttcctcagag tcttccttaa      300
tcctatggaa caagaagctg ccactgaata gggcccagta taggggcttg cttttctact      360
ccctccccc aatataaaaa tatagacttt taaaaaaaaa aaaaaaaagg gcgccgatcg      420
cgatctagaa ctagt                                     435

```

```

<210> 258
<211> 393
<212> DNA
<213> Homo sapiens

```

```

<400> 258
gccgagccgg actggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc      60
tgggcgtgtc gctcttcttg cttgtcgttc tctatcacta cgtggccgtc aacaatccca      120
agaagcagga atgaaagtgg cgctttctcc gccccagggt tccaggacat agtctgaggc      180
aagatggagg gtatgaaggg ccttcacact tcacttcac ctttctaccc atcacaacat      240
acaaagcaac tacacctgga tttttccaaa caacttttat ttcctcagag tcttccttaa      300
tcctatggaa caagaagctg ccactgaata gggcccagta taggggcttg cttttctact      360
ccctccccc aatataaaaa tactagactt att                                     393

```

```

<210> 259
<211> 367
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> modified_base
<222> (1) ... (367)
<223> n = g, a, c or t

```

```

<400> 259
actagttcta gatcgcgagc ggcgcccttt tttttttttt tttttaaaag tctatatttt      60
tatattgggg ggagggagta gaaaagcaag cccctatact gggccctatt cagtggcagc      120
ttcttggtcc ataggattaa ggaagactct gaggaataaa aagttgtttg gaaaaatcca      180
ggtgtagtgt ctttgtatgt tgtgatgggt agaagggatg aagtgaagtg tgaaggccct      240
tcataccctc catcttgcc t cagactatgt acctggaacc ctggggcnga gaaagcgcca      300
cnttcattcc tgcttctagg gatcgnnaga cggacacgat agntgactag agaacgacaa      360
gcaagaa                                     367

```

```

<210> 260
<211> 433
<212> DNA
<213> Homo sapiens

```

```

<400> 260
gccgagccgg actggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc      60
tgggcgtgtc gctcttcttg cttgtcgttc tctatcacca cgtggccgtc aacaatccca      120
agaagcagga atgaaagtgg cgctttctcc gccccagggt tccaggacat agtctgaggc      180
aagatggagg gtatgagggg ccttcacact tcacttcac ctttctaccc atcacaacat      240
acaaagcaac tacacctgga tttttccaaa caacttttat ttcctcagag tcttcctaat      300
cctcatggaa caagaagctg ccactgaata gggcccagta taggggcttg cttttctact      360
ccctccccc aatataaaat atagactttt aaaaaaaaaa aaaaaagggc gccgctcgcg      420
atctagaact agt                                     433

```

<210> 261
 <211> 434
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(434)
 <223> n = g, a, c or t

<400> 261
 actagttcta gatcgcgagc ggcgcccttt tttttttttt tttaaaagtc tatattttta 60
 tattgggggg agggagtaga aaagcaagcc cctatactgg gccctattca gtggcagctt 120
 cttgttccat aggattagga agactctgag gaaataaaaag ttgtttggaa aaatccaggt 180
 gtagttgctt tgtatgttg gatgggtaga agggatgaag tgaagtgtca agggccctca 240
 taccctccat cttgcctcag actatgtcct ggaaccctgg ggcggagaaa gcgccncttt 300
 cattcctgct tcttgggatt gttgacggcc acgtggtgat agagaacgac aagcaagaag 360
 agcganacgc ccagcatgtt ggcgaagatg gcgagctgca cgtccgtgat catcctgacc 420
 agtccaggct cggc 434

<210> 262
 <211> 434
 <212> DNA
 <213> Homo sapiens

<400> 262
 gccgagccgg actggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc 60
 tgggcgtgtc gctcttcttg cttgtcgttc tctatcacta cgtggccgtc aacaatccca 120
 agaagcagga atgaaagtgg cgctttctcc gcccagggt tccaggacat agtctgaggc 180
 aagatggagg gtatgagggg ccttcacact tcacttcac ccttctaccc atcacaacat 240
 acaaagcaac tacacctgga tttttccaaa caacttttat ttctcagag tcttccttaa 300
 tcctatggaa caagaagctg ccactgaata gggcccagta taggggcttg cttttctact 360
 ccctccccc aatataaaaa tatagacttt taaaaaaaaa aaaaaaaggg gcgcgctcgc 420
 gatctagaac tagt 434

<210> 263
 <211> 436
 <212> DNA
 <213> Homo sapiens

<400> 263
 actagttcta gatcgcgagc ggcgcccttt tttttttttt tttaaaagtc tatattttta 60
 tattgggggg agggagtaga aaagcaagcc cctatactgg gccctattca gtggcagctt 120
 cttgttccat aggattagga aagactctga ggaaataaaa gttgtttgga aaaatccagg 180
 ttagttgctt ttgtatgttg tgatgggtag aaggatgaa gtgaagtgtg aaggccctc 240
 ataccctcca tcttgctcga gactatgtcc tggaaccctg ggcggagaaa agcgccactt 300
 tcattcctgc ttcttgggat tgttgacggc cacgtagtga tagagaacga ccagcaagaa 360
 gagcgacacg caccagcatg ttggcgaaga tggcgagctg cacgtccgtg atcatcctga 420
 ccaggtccgg catcgg 436

<210> 264
 <211> 434
 <212> DNA
 <213> Homo sapiens

<400> 264
 gccgagccgg actggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc 60
 tgggcgtgtc gctcttcttg cttgtcgttc tctatcacta cgtggccgtc aacaatccca 120
 agaagcagga atgaaagtgg cgctttctcc gcccagggt tccaggacat agtctgaggc 180
 aagatggagg gtatgagggg ccttcacact tcacttcac ccttctaccc atcacaacat 240
 acaaagcaac tacacctgga tttttccaaa caacttttat ttctcagag tcttccttaa 300

tcctatggaa	caagaagctg	ccactgaata	gggcccagta	taggggcttg	cttttctact	360
ccctccccc	aatataaaaa	tatagacttt	taaaaaaaaa	aaaaaaagg	cgccgctcgc	420
gatctagaac	tagt					434

<210> 265
 <211> 435
 <212> DNA
 <213> Homo sapiens

<400> 265						
gccgagccgg	actggtcagg	atgatcacgg	acgtgcagct	cgccatcgtc	gccaacatgc	60
tgggcgtgtc	gctcttcttg	cttgctggtc	tctatcacta	cgtggccgtc	aacaatccca	120
agaagcagga	atgaaaagtgg	cgctttctcc	gccccagggt	tccaggacat	agtctgaggc	180
aagatggagg	gtatgagggg	ccttcacact	tcacttcac	ccttctaccc	atcacaacat	240
acaaagcaac	tacacctgga	tttttccaaa	caacttctta	tttctcaga	gtcttcctta	300
atcctatgga	acaagaagct	gccactgaat	agggccagct	ataggggctt	gcttttctac	360
tccctccccc	caatataaaa	atatagactt	ttaaaaaaaa	aaaaaaagg	gcgcccgcgc	420
cgatctagaa	ctagt					435

<210> 266
 <211> 437
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(437)
 <223> n = g, a, c or t

<400> 266						
gccgagccgg	ctggtcagga	tgatcacgga	cgtgcagctc	gccatcttcg	ccaacatgct	60
gggcgtgtcg	ctcttcttgc	ttgtcggttc	ctatcactac	gtggccgcta	acaatcccaa	120
gaagcaggaa	tgaagggtgg	gctttctccg	ccccagggtt	ccaggacata	gtctgaggca	180
agatggaggg	tatgaggggc	ccttcacactt	cacttcatcc	cttctaccca	tcacaacata	240
caaagcaact	acacctggat	ttttccaaac	aactttttatt	tcctcagagg	tcttccctta	300
atcctatgga	acaagaagct	gncactgaat	agggccagct	ataggggctt	gcttttctac	360
tccctccccc	caatatnaaa	atatagactt	ttaaaaaaaa	aaaaaaaaaa	gggcgcccgc	420
cgcgatctag	aactagt					437

<210> 267
 <211> 509
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(509)
 <223> n = g, a, c or t

<400> 267						
gccgagccgg	actggtcagg	atgatcacgg	acgtgcagct	cgccatcttc	gccaacatgc	60
tgggcgtgtc	gctcttcttg	cttgctggtc	tctatcacta	cgtggccgtc	aacaatccca	120
agaagcagga	atgaaaagtgg	cgctttctcc	gncccagggt	tccaggacat	agtctgaggc	180
aagatggagg	gtatgagggg	ccttcacact	tcacttcac	ccttctaccc	atcacaacat	240
acaaagcaac	tacacctgga	tttttccaaa	caacttttat	ttcctcagag	tcttccttaa	300
tcctatggaa	caagaagctg	gcactgaata	gtggcccagct	ataggggctt	gcttttctac	360
tccctccccc	caatatnaaa	atatagactt	ttaaaaaaaa	aaaaaaagg	ggnccggtcg	420
gatctagaac	tagtccgna	gaaaccagca	cagtgggttag	atagataaa	cgggcggtcg	480
actantctga	ggtctgatac	tcactgact				509

<210> 268
 <211> 594
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(594)
 <223> n = g, a, c or t

```

<400> 268
gccgagccgg actggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc      60
tgggcgtgtc gctcttcttg cttgtcgttc tctatcacta cgtggccgct aacaatccca      120
agaagcagga atgaaagtgg cgctttctcc gccccagggg tccaggacat agtctgaggc      180
aagatggagg gtatgagggg ccttcacact tcacttcata ccttctaccc atcacaacat      240
acaaagcaac tacacctgga tttttccaaa caacttttat ttcctcagag tcttccttaa      300
tcctatggaa caagaagctg ccactgaata gggcccagta taggggcttg cttttctact      360
ccctccccc aatataaaaa tatagacttt taaaaaaaaa aaaaaaaaaa gggcgccgct      420
cgcgatctag aactagtccg nagaaccag cagctgggtt agatagataa agcggccgct      480
cgactagtct gaggtctgat actcactgac tgtcgtaagg gcgaattcgt ttaaacctgc      540
aggactagtc cttttatgag gggttaaattc tgagcttggc gtaatcatgg tcac          594

```

<210> 269
 <211> 482
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(482)
 <223> n = g, a, c or t

```

<400> 269
gccgagccgg actggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc      60
tgggcgtgtc gctcttcttg cttgtcgttc tctatcacta cgtggccgct aacaatccca      120
agaagcagga atgaaagtgg cgctttctcc gccccagggg tccaggacat agtctgaggc      180
aagatggagg gtatgagggg ccttcacact tcacttcata ccttctaccc atcacaacat      240
acaaagcaac tacacactgg atttttccaa acaactttta tttcctcaga gtcttcctta      300
atcctatgga acaagaagct gccactgaat agggcccagt ataggggctt gcattttcta      360
ctccctccca cccaatataa aaatatagac tttttaaaca aacacaacaa cacaacaaaa      420
agggcgccag ctcggcgacg tagaactagt ccggcaagaa ccccagnaac agggggttaga      480
ta                                     482

```

<210> 270
 <211> 438
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(438)
 <223> n = g, a, c or t

```

<400> 270
gccgagccgg actggtcagg atgatcacgg acgcgcagct cgccatcttc gccaacatgc      60
tgggcgtgtc gctcttcttg cttgtcgttc tctatcacta cgtggccgct aacaatccca      120
agaagcagga atgaaagtgg cgctttctcc gccccagggg ttccaggaca tagtctgagg      180
caagatggag ggtatgaggg gccttcacac ttcacttcac cccttctanc catcacaaca      240
tacaaagcaa ctacacctgg atttttccaa acaactttta tttcctcaga gtcttcctta      300
atcctatgga acaagaagct ggcactgaat agggcccagt atangggctt gcgttttcta      360

```

ctccctcccc ccaatataaa aatatagact tttaaaaaaa aaaaatnaaa gggngccgct	420
cgcgatacta gaactagt	438

```

<210> 271
<211> 439
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(439)
<223> n = g, a, c or t

```

<400> 271	
ctagttctag atcgcgagcg gcgccctttt tttttttttt ttaaaagtct atattttttat	60
attgggggga gggagtagaa aagcaagccc ctatactggg ccctattcag tggcagcttc	120
ttgttccata ggattaagga agactctgag gaaataaaaag ttgtttggaa aaatccaggt	180
gtagttgctt tgtatgttgt gatgggtaga agggatgaag tgaagtgtga aggccctca	240
taccctccat cttgcctcag actatgtcct ggaaccttg ggcggagaaa gcgccactgt	300
tcattcctgc tntcttgga ttgttcgacg gncacgtaga tgatagagaa cgacaagcaa	360
gaagagcgaa nacgccagc atgtaaggcg aagatggcga gctgcacgtc cgtgatcatc	420
ctgaccagtc cggctcgga	439

```

<210> 272
<211> 742
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(742)
<223> n = g, a, c or t

```

<400> 272	
actagttcta gatcgcgagc ggcgcccttt tttttttttt tttaaaagtc tatattttta	60
tattggggggg agggagtaga aaagcaagcc cctatactgg gccctattca gtggcagctt	120
cttgttccat aggattaagg aagactctga ggaaataaaa gttgtttgga aaaatccagg	180
tgtagttgct ttgtatgttg tgatgggtag aagggatgaa gtgaagtgtg aaggccctc	240
ataccctcca tcttgccctca gactatgtcc tggaaacctg gggcggagaa agcgccactt	300
tcattcctgc ttcttgggat tgttgacggc cacgtagtga tagcgaacga caagcaagaa	360
gagcgacacg cccagcatgt tggcgacgat ggcgagctgc acgtccgtga tcatcctgac	420
cagtcgggct cggcccgaag aaccagaca acactggagc caccgtgcca ccggccttg	480
cggctacctc cttgtacaag ctcggtccat gccgagaaa gggcgaaaata ctgcagatat	540
ccatcacaaac tggcgggccg catccgagca tgcacttaga agggccaaat acgccatata	600
ggngagtcgg aataacaatt cacctggccg gcgatccaaa cgtcgtgact ggaaaaaacc	660
cgggggatna cccaaaaaag ttaaaatcgg ccngaaggac anaacccac gattaggcaa	720
anagnccgaa aaataacnaa aa	742

```

<210> 273
<211> 437
<212> DNA
<213> Homo sapiens

```

<400> 273	
gccgagccgg actggtcagg atgatcacgg acgtgcagct cgccatcttc gccaacatgc	60
tgggcgtgtc gctcttcttg cttgtcgttc tctatcacta cgtggccgtc aacaatccca	120
agaagcagga atgaagggtg cgctttctcc gccccagggg ttccaggaca tagtctgagg	180
caagatggag ggtatgaggg gccttcacac ttcacttcat cccttctacc catcacaca	240
tacaaagcaa ctacacctgg atttttccaa acaactttta tttcctcaga gtcttcctta	300
atcctatgga acaagaagct gccactgaat agggccagat ataggggctt gcttttctac	360

tccctccccc	caatataaaa	atatagactt	ttaaaaaaaaa	aaaaaaaaaaa	gggcgcgcgt	420
cgcgatctag	aactagt					437

<210> 274
 <211> 412
 <212> DNA
 <213> Homo sapiens

<400> 274						
gccgagccgg	actggtcagg	atgatcacgg	acgtgcagct	cgccatcttc	gccaacatgc	60
tgggcgtgtc	gctcttcttg	cttgctgttc	tctatcacta	cgtggccgtc	aacaatccca	120
agaagcagga	atgaaagtgg	cgctttctcc	gccccagggt	tccaggacat	agtctgaggc	180
aagatggagg	gtatgagggg	ccttcacact	tcacttcac	ccttctaccc	atcacaacat	240
acaaagcaac	tacacctgga	tttttccaaa	caacttttat	ttcctcagag	tcttccttaa	300
tcctatggaa	caagaagctg	ccactgaata	gggccagta	taggggcttg	cttttctact	360
ccctccccc	aatataaaaa	tatagacttt	taaaaaaaaa	aaaaaaaaaaa	aa	412

<210> 275
 <211> 313
 <212> DNA
 <213> Homo sapiens

<400> 275						
caccagcacc	cttaccagaa	gctccacaac	cacagcgtct	gccccagaa	gctgccagca	60
catctctgcc	tcagaagcca	cacttgaagt	tagcacgcgt	tcagagtcaa	aatggcatag	120
tactgtcatg	gagtgtcctg	gaggtggatc	gaagctgtgc	cactgttgat	agctaccatc	180
tctatgctta	ccatgaggaa	cccagtgcc	ctgtgccctc	acaatggaaa	aagattgggg	240
aagtcaaggc	acttcccttg	gcccattggc	tgtactctca	cccagtttgt	atctggtagc	300
aaatactact	ttg					313

<210> 276
 <211> 313
 <212> DNA
 <213> Homo sapiens

<400> 276						
caccagcac	ccttaccaga	agctccacaa	ccacagcgtc	tgccccaga	agctgccagc	60
acatctctgc	ctcagaagcc	acacttgaag	ttagcacgcg	ttcagagtca	aaatggcata	120
gtactgtcat	ggagtgtcct	ggaggtggat	cgaagctgtg	ccactgttga	tagctaccat	180
ctctatgctt	accatgagga	accagtgcc	actgtgccct	cacaatggaa	aaagattggg	240
gaagtcaagg	cacttccctt	gcccattggc	tgtactctca	cccagtttgt	atctggtagc	300
aaatactact	ttg					313

<210> 277
 <211> 314
 <212> DNA
 <213> Homo sapiens

<400> 277						
caccagcac	cttaccagaa	gctccacaac	cacagcgtct	gccccagaa	gctgccagca	60
catctctgcc	tcagaagcca	cacttgaagt	tagcacgcgt	tcaggggtca	aaatggcata	120
gtactgtcat	ggagtgtcct	ggaggtggat	cgaagctgtg	ccactgttga	tagctaccat	180
ctctatgctt	accatgagga	accagtgcc	actgtgccct	cacaatggaa	aaagattggg	240
gaagtcaagg	cacttccctt	gcccattggc	tgtactctca	cccagtttgt	atctggtagc	300
aaatactacg	tttg					314

<210> 278
 <211> 311
 <212> DNA
 <213> Homo sapiens

<400> 278
caccagcacc ttacagaagc tccacaacca cagcgtctgc cccagaagc tgccagcaca 60
tctctgcctc agaaaccaca cttgaagtta gcacgcgttc agagtcaaaa ctggcatagt 120
actgtcatgg agtgcctgg aggtggatcg aagctgtgcc actgttgata gctaccatct 180
ctatgcttac catgaggaa ccaagtgccac tgtgccctca caatggaaaa agattgggga 240
agtcaaggca cttcccttgc ccatggcatg tactctcacc cagtttgtat ctggtagcaa 300
atactacttt g 311

<210> 279
<211> 313
<212> DNA
<213> Homo sapiens

<400> 279
caccagcacc cttaccaga agtccacaa ccacagcgtc tgccccaga agctgccagc 60
acatctctgc ctcagaaacc acacttgaag ttagcacgcg ttcagagtca aaatggcata 120
gtactgtcat ggagtgtcct ggaggtggat cgaagctgtg ccactgttga tagctaccat 180
ctctatgctt accatgagga acccagtgcc actgtgccct cacaatggaa aaagattggg 240
gaagtcaagg cacttccctt gccatggca tgtactctca ccagtttgt atctggtagc 300
aaatactact ttg 313

<210> 280
<211> 311
<212> DNA
<213> Homo sapiens

<400> 280
caccagcacc ttaccagaag ctccacaacc acagcgtctg cccccaagc ctgccagcac 60
atctctgcct cagaagccac acttgaagtt agcacgcgtt cagagtcaaa atggcatagt 120
actgtcatgg agtgccttgg aggtggatcg aagctgtgcc actgttgata gctaccatct 180
ctatgcttac catgaggaa ccaagtgccac tgtgccctca caatggaaaa agattgggga 240
agtcaaggca cttcccttgc ccatggcatg tactctcacc cagtttgtat ctggtagcaa 300
atactacttt g 311

<210> 281
<211> 312
<212> DNA
<213> Homo sapiens

<400> 281
caccagcacc cttaccagaa gctccacaac cacagcgtct gccccagaa gctgccagca 60
catctctgcc tcagaagcca cacttgaagt tagcacgcgt tcagagtcaa aatggcatag 120
tactgtcatg gagtgtcctg gaggtggatc gaagctgtgc cactgttgat agctaccatc 180
tctatgctta ccatgaggaa cccagtgccca ctgtgccctc acaatggaaa aagattgggg 240
aagtcaaggc acttcccttg cccatggcat gtactctcac ccagtttgta tctggtagca 300
aatactactt tg 312

<210> 282
<211> 312
<212> DNA
<213> Homo sapiens

<400> 282
caccagcacc cttaccagaa gctccacaac cacagcgtct gccccagaa gctgccagca 60
catctctgcc tcagaaacca cacttgaagt tagcacgcgt tcagagtcaa aatggcatag 120
tactgtcatg gagtgtcctg gaggtggatc gaagctgtgc cactgttgat agctaccatc 180
tctatgctta ccatgaggaa cccagtgccca ctgtgccctc acaatggaaa aagattgggg 240
aagtcaaggc acttcccttg cccatggcat gtactctcac ccagtttgta tctggtagca 300
aatactactt tg 312

<210> 283
 <211> 311
 <212> DNA
 <213> Homo sapiens

<400> 283
 caccagcacc ttaccagaag ctccacaacc acagcgtctg cccccagaag ctgccagcac 60
 atctctgcct cagaagccac acttgaagtt agcacgcgtt cagagtcaaa atggcatagt 120
 actgtcatgg agtgtcctgg aggtggatcg aagctgtgcc actgttgata gctaccatct 180
 ctatgcttac catgaggaac ccagtgccac tgtgccctca caatggaaaa agattgggga 240
 agtcaaggca cttcccttgc ccatggcatg tactctcacc cagtttgtat ctggtagcaa 300
 atactacttt g 311

<210> 284
 <211> 262
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(262)
 <223> n = g, a, c or t

<400> 284
 caccagcacc ttaccagaag ctccacaacc acagggcgtct ggccccccaa gaacaaacag 60
 ggccctttgt ggtcgtncct cacaaaaggg ggccccctta taaacaccca taaaattttt 120
 caccctttt ntcccccttg ggggtgtcccc ccccccttt tttccccaaa aaaggggncc 180
 caaaaccaa gggggcccc cccctttaaa aaccctaaaa accccccttt tttttttttt 240
 tngggggccc ccaaacccaa ac 262

<210> 285
 <211> 312
 <212> DNA
 <213> Homo sapiens

<400> 285
 caccagcac cttaccagaa gctccacaac cacagcgtct gccccagaa gctgccagca 60
 catctctgcc tcagaagcca cacttgaagt tagcacgct tcagagtcaa aatggcatag 120
 tactgtcatg gagtgtcctg gaggtggatc gaagctgtgc cactgttgat agctaccatc 180
 totatgetta ccatgaggaa cccagtgcc ctgtgccctc acaatggaaa aagattgggg 240
 aagtcaaggc acttcccttg cccatggcat gtactctcac ccagtttgta tctggtagca 300
 aatactactt tg 312

<210> 286
 <211> 2554
 <212> DNA
 <213> Homo sapiens

<400> 286
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 agaggatatt tcgggtgaaa aagatgagtc tgaagttata tcgcaaaatg aaacgtgctc 120
 tccagcagaa gttagaaagta atgaaaagga caacagacct gaggaagaag agcaagtaat 180
 acatgaagat gatgaaagac cttctgagaa aaatgaattt tctagacgaa aacgttctaa 240
 atcagaagac atggacaatg tacagtctaa acgtcgtcga tatatggaag aagaatatga 300
 ggcagaattt caagtaaaga ttacagccaa aggagacatt aaccagaaac ttcaaaagggt 360
 tatacagtgg ttgctggaag aaaaattgtg tgcgctgcag tgtgctgtat ttgataagac 420
 tttggcagaa ttgaaaacac gagtggaaaa gattgaatgt aacaagaggc ataaaacagt 480
 tctcactgaa ctacaggcca agatagccag gttaacaaaa cgctttgaag cagccaaaga 540
 agatcttaag aaaagacatg aacatccacc caaccacca gtatcaccag gaaaaactgt 600
 aaatgatgtc aacagcaata ataacatgtc ttacagaaat gcaggcacag tgagacagat 660
 gctggagtc aaaagaaatg taagcgagag tgcaccacca tcctttcaaa ctccctgtgaa 720

tacagtatct	tcaaccaate	ttgtcactcc	tccagcagtt	gtcagtagtc	aacctaaatt	780
gcagactcca	gtgacttcgg	gttccctcac	agcaacgtca	gttcttcctg	cacccaatac	840
agctactgta	gttgctacta	ctcaggtgcc	tagtggaat	ccccagccta	caatctcttt	900
acagcctttg	ccagtgattt	tgcattgtacc	tgttgtagta	tcctcccagc	ctcagcttct	960
acagagccat	ccagggactt	tggtgactaa	tcaacctatc	ggcaatggtg	aattcatttc	1020
tgtgcaaagc	ccacctacag	tgagtgggtc	tacccaaaat	ccagtatcct	tgccatcctt	1080
gccaaatccc	actaaaccaa	acaacgttcc	ttctgtgccc	agtcctagta	ttcaaaggaa	1140
ccctactgcc	agtgtctgcac	cattgggaac	aacacttget	gtgcaggctg	ttccaacagc	1200
acactctatt	gtacaagcca	caaggacttc	tttaccacac	gtgggcccac	caggactcta	1260
tagtccatca	actaatcgag	gtcctatata	gatgaaaatt	ccaatttctg	catttagtac	1320
ttcgtctgct	gcagaacaga	acagcaatac	caccccaaga	attgaaaacc	agacaaaaca	1380
aacaatagat	gcttctgtca	gtaagaaagc	agctgatagc	acatcacagt	gtggaaaagc	1440
cactggcagt	gattcaagtg	gtgtcattga	tctcacaatg	gatgatgaag	agagtggagc	1500
ttcacaagac	cccaaaaaac	taaatacacac	tctgtatca	accatgagtt	cttctcagcc	1560
tgtgtcacga	ccattgcaac	ccatacaacc	agcaccgcct	cttcaaccat	ctgggggtgcc	1620
aacaagtggg	ccatctcaga	ccaccataca	cttactacct	acagctccaa	ctaccgtgaa	1680
tgtaacacat	cgtccagtaa	ctcaggtgac	cacaagactc	cctgtacca	gagctcctgc	1740
aaaccaccag	gtggtttata	caactcttcc	tgcaccacca	gctcaggctc	ccttgcgagg	1800
aactgttatg	caggctcctg	ctgttcggca	ggtaaatccc	caaaatagtg	ttacagtctg	1860
agtgcctcaa	acaaccacat	atgttgtaaa	caatggacta	accctgggat	caacaggacc	1920
tcagctcaca	gtgcatcacc	gaccaccaca	agtgcatact	gagccccccac	gccccgtgca	1980
cccagcaccc	ttaccagaag	ctccacaacc	acagcgtctg	cccccagaag	ctgccagcac	2040
atctctgcct	cagaagccac	acttgaagtt	agcacgcgtt	cagagtcaaa	atggcatagt	2100
actgtcatgg	gggtgcctgg	aggtggatcg	aagctgtgcc	actgttgata	gctaccatct	2160
ctatgcttac	catgaggaac	ccagtgccac	tgtgccctca	caatggaaaa	agattgggga	2220
agtcaaggca	cttcccttgc	ccatggcatg	tactctcacc	cagtttgat	ctggtagcaa	2280
atactacttt	gcagtacgag	ccaaggatat	ttatggacgt	tttgggcctt	tctgtgatcc	2340
tcagtcaaca	gatgtgatct	cttctaccca	gagcagttaa	accttgagc	ctttatat	2400
tcctctttta	aaatttccac	cttttgggtc	tgttttta	cttgtgcatg	atacccatg	2460
taaaatccac	cttgtgcaag	atctcttgga	cagatgtgtg	tatacactac	atctgtttat	2520
aaccagaagc	aaaataaact	cagcccacaa	agct			2554

<210> 287

<211> 709

<212> PRT

<213> Homo sapiens

<400> 287

Met	Asp	Asn	Val	Gln	Ser	Lys	Arg	Arg	Arg	Tyr	Met	Glu	Glu	Glu	Tyr
1				5					10					15	
Glu	Ala	Glu	Phe	Gln	Val	Lys	Ile	Thr	Ala	Lys	Gly	Asp	Ile	Asn	Gln
			20					25					30		
Lys	Leu	Gln	Lys	Val	Ile	Gln	Trp	Leu	Leu	Glu	Glu	Lys	Leu	Cys	Ala
		35				40					45				
Leu	Gln	Cys	Ala	Val	Phe	Asp	Lys	Thr	Leu	Ala	Glu	Leu	Lys	Thr	Arg
	50					55				60					
Val	Glu	Lys	Ile	Glu	Cys	Asn	Lys	Arg	His	Lys	Thr	Val	Leu	Thr	Glu
65					70				75					80	
Leu	Gln	Ala	Lys	Ile	Ala	Arg	Leu	Thr	Lys	Arg	Phe	Glu	Ala	Ala	Lys
			85					90						95	
Glu	Asp	Leu	Lys	Lys	Arg	His	Glu	His	Pro	Pro	Asn	Pro	Pro	Val	Ser
		100					105					110			
Pro	Gly	Lys	Thr	Val	Asn	Asp	Val	Asn	Ser	Asn	Asn	Asn	Met	Ser	Tyr
		115					120					125			
Arg	Asn	Ala	Gly	Thr	Val	Arg	Gln	Met	Leu	Glu	Ser	Lys	Arg	Asn	Val
	130					135					140				
Ser	Glu	Ser	Ala	Pro	Pro	Ser	Phe	Gln	Thr	Pro	Val	Asn	Thr	Val	Ser
145					150					155				160	
Ser	Thr	Asn	Leu	Val	Thr	Pro	Pro	Ala	Val	Val	Ser	Ser	Gln	Pro	Lys
			165					170						175	

Leu	Gln	Thr	Pro	Val	Thr	Ser	Gly	Ser	Leu	Thr	Ala	Thr	Ser	Val	Leu	180	185	190
Pro	Ala	Pro	Asn	Thr	Ala	Thr	Val	Val	Ala	Thr	Thr	Gln	Val	Pro	Ser	195	200	205
Gly	Asn	Pro	Gln	Pro	Thr	Ile	Ser	Leu	Gln	Pro	Leu	Pro	Val	Ile	Leu	210	215	220
His	Val	Pro	Val	Ala	Val	Ser	Ser	Gln	Pro	Gln	Leu	Leu	Gln	Ser	His	225	230	235
Pro	Gly	Thr	Leu	Val	Thr	Asn	Gln	Pro	Ser	Gly	Asn	Val	Glu	Phe	Ile	245	250	255
Ser	Val	Gln	Ser	Pro	Pro	Thr	Val	Ser	Gly	Leu	Thr	Lys	Asn	Pro	Val	260	265	270
Ser	Leu	Pro	Ser	Leu	Pro	Asn	Pro	Thr	Lys	Pro	Asn	Asn	Val	Pro	Ser	275	280	285
Val	Pro	Ser	Pro	Ser	Ile	Gln	Arg	Asn	Pro	Thr	Ala	Ser	Ala	Ala	Pro	290	295	300
Leu	Gly	Thr	Thr	Leu	Ala	Val	Gln	Ala	Val	Pro	Thr	Ala	His	Ser	Ile	305	310	315
Val	Gln	Ala	Thr	Arg	Thr	Ser	Leu	Pro	Thr	Val	Gly	Pro	Ser	Gly	Leu	325	330	335
Tyr	Ser	Pro	Ser	Thr	Asn	Arg	Gly	Pro	Ile	Gln	Met	Lys	Ile	Pro	Ile	340	345	350
Ser	Ala	Phe	Ser	Thr	Ser	Ser	Ala	Ala	Glu	Gln	Asn	Ser	Asn	Thr	Thr	355	360	365
Pro	Arg	Ile	Glu	Asn	Gln	Thr	Asn	Lys	Thr	Ile	Asp	Ala	Ser	Val	Ser	370	375	380
Lys	Lys	Ala	Ala	Asp	Ser	Thr	Ser	Gln	Cys	Gly	Lys	Ala	Thr	Gly	Ser	385	390	395
Asp	Ser	Ser	Gly	Val	Ile	Asp	Leu	Thr	Met	Asp	Asp	Glu	Glu	Ser	Gly	405	410	415
Ala	Ser	Gln	Asp	Pro	Lys	Lys	Leu	Asn	His	Thr	Pro	Val	Ser	Thr	Met	420	425	430
Ser	Ser	Ser	Gln	Pro	Val	Ser	Arg	Pro	Leu	Gln	Pro	Ile	Gln	Pro	Ala	435	440	445
Pro	Pro	Leu	Gln	Pro	Ser	Gly	Val	Pro	Thr	Ser	Gly	Pro	Ser	Gln	Thr	450	455	460
Thr	Ile	His	Leu	Leu	Pro	Thr	Ala	Pro	Thr	Thr	Val	Asn	Val	Thr	His	465	470	475
Arg	Pro	Val	Thr	Gln	Val	Thr	Thr	Arg	Leu	Pro	Val	Pro	Arg	Ala	Pro	485	490	495
Ala	Asn	His	Gln	Val	Val	Tyr	Thr	Thr	Leu	Pro	Ala	Pro	Pro	Ala	Gln	500	505	510
Ala	Pro	Leu	Arg	Gly	Thr	Val	Met	Gln	Ala	Pro	Ala	Val	Arg	Gln	Val	515	520	525
Asn	Pro	Gln	Asn	Ser	Val	Thr	Val	Arg	Val	Pro	Gln	Thr	Thr	Thr	Tyr	530	535	540
Val	Val	Asn	Asn	Gly	Leu	Thr	Leu	Gly	Ser	Thr	Gly	Pro	Gln	Leu	Thr	545	550	555
Val	His	His	Arg	Pro	Pro	Gln	Val	His	Thr	Glu	Pro	Pro	Arg	Pro	Val	565	570	575
His	Pro	Ala	Pro	Leu	Pro	Glu	Ala	Pro	Gln	Pro	Gln	Arg	Leu	Pro	Pro	580	585	590
Glu	Ala	Ala	Ser	Thr	Ser	Leu	Pro	Gln	Lys	Pro	His	Leu	Lys	Leu	Ala	595	600	605
Arg	Val	Gln	Ser	Gln	Asn	Gly	Ile	Val	Leu	Ser	Trp	Gly	Val	Leu	Glu	610	615	620
Val	Asp	Arg	Ser	Cys	Ala	Thr	Val	Asp	Ser	Tyr	His	Leu	Tyr	Ala	Tyr	625	630	635
His	Glu	Glu	Pro	Ser	Ala	Thr	Val	Pro	Ser	Gln	Trp	Lys	Lys	Ile	Gly	645	650	655

Glu Val Lys Ala Leu Pro Leu Pro Met Ala Cys Thr Leu Thr Gln Phe
 660 665 670
 Val Ser Gly Ser Lys Tyr Tyr Phe Ala Val Arg Ala Lys Asp Ile Tyr
 675 680 685
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 Ser Thr Gln Ser Ser
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 <212> DNA
 <213> Homo sapiens

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 gagctgtgct tccacctaag ccgttggttag gggactgtgg catttaagaa tgtagagagc 180
 gcaccccttt tgatctcctg ggcggagtga acctgcaggg gccaccccag aaaccttggt 240
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<210> 292

<211> 406

<212> DNA

<213> Homo sapiens

<400> 292

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<211> 406

<212> DNA

<213> Homo sapiens

<400> 293

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<211> 406

<212> DNA

<213> Homo sapiens

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<210> 295

<211> 406

<212> DNA

<213> Homo sapiens

<400> 295

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 <213> Homo sapiens

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 <211> 5640
 <212> DNA
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<211> 738

<212> PRT

<213> Homo sapiens

<400> 298

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 <213> Homo sapiens

<400> 301
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 gcctgccag gcccagctgc tggagaccgc cagctctgtc cccggcggtc cctaatacacc 180
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<210> 302
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 <213> Homo sapiens

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 <223> n = g, a, c or t

<400> 302
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<210> 303
 <211> 446
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)...(446)
 <223> n = g, a, c or t

<400> 303
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 gcccgaggcc cagctgctgg agaccgcag ctgctccccg gcggctccta atcaccagca 180

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aagtggaccg	caggggagac	gctctcttac	ggggaccctg	ggggcgctca	ctctctgaag	360
ggcctggaag	ctagattcca	gaggcggtgg	ccacctctcc	ctgggttttg	gggagccccc	420
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<210> 304

<211> 436

<212> DNA

<213> Homo sapiens

<220>

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<222> (1)...(436)

<223> n = g, a, c or t

<400> 304

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<210> 305

<211> 470

<212> DNA

<213> Homo sapiens

<400> 305

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ggcctggaag	ctagattcca	gaggcggtgg	ccacctctcc	ctgggttttg	gggagccccc	420
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<210> 306

<211> 341

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(341)

<223> n = g, a, c or t

<400> 306

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<210> 307
 <211> 470
 <212> DNA
 <213> Homo sapiens

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 ggcctggaag ctagattcca gaggcgtggg ccacctctcc ctgggttttg gggagccccc 420
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<210> 308
 <211> 3981
 <212> DNA
 <213> Homo sapiens

<400> 308
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<210> 309

<211> 435

<212> PRT

<213> Homo sapiens

<400> 309

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20          25          30
Ser Gly Ala Val Ile Ile Ser Pro Ser Tyr Ala Ser Ser Val Asp Cys
35          40          45
Gly Gln Ala Pro Leu Asp Pro Val Tyr Leu Pro Ala Ala Leu Glu Leu
50          55          60
Leu Asp Ala Pro Glu His Phe Arg Val Gln Gln Val Gly His Tyr Pro
65          70          75          80
Pro Ala Asn Ser Ser Leu Ser Ser Arg Ser Glu Thr Phe Leu Leu Leu
85          90          95
Gln Pro Trp Pro Arg Ala Gln Pro Leu Leu Arg Ala Ser Tyr Pro Pro
100          105          110
Phe Ala Thr Gln Gln Val Val Pro Pro Arg Val Thr Glu Pro His Gln
115          120          125
Arg Pro Val Pro Trp Asp Val Arg Ala Val Ser Val Glu Ala Ala Val
130          135          140
Thr Pro Ala Glu Pro Tyr Ala Arg Val Leu Phe His Leu Lys Gly Gln
145          150          155          160
Asp Trp Pro Pro Gly Ser Gly Ser Leu Pro Cys Ala Arg Leu His Ala
165          170          175
Thr His Pro Ala Gly Thr Ala His Gln Ala Cys Arg Phe Gln Pro Ser
180          185          190
Leu Gly Ala Cys Val Val Glu Leu Glu Leu Pro Ser His Trp Phe Ser
195          200          205

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Gln Ala Ser Thr Thr Arg Ala Glu Leu Ala Tyr Thr Leu Glu Pro Ala
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 Ala Glu Gly Pro Gly Gly Cys Gly Ser Gly Glu Glu Asn Asp Pro Gly
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 Pro Gln Tyr Gln Glu Val Pro Leu Asp Glu Ala Val Thr Leu Arg Val
 260 265 270
 Pro Asp Met Pro Val Arg Pro Gly Gln Leu Phe Ser Ala Thr Leu Leu
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 290 295 300
 Lys Lys Gly Leu His Val Thr Ala Ala Arg Pro Ala Gln Pro Thr Leu
 305 310 315 320
 Trp Thr Ala Lys Leu Asp Arg Phe Lys Gly Ser Arg His His Thr Thr
 325 330 335
 Leu Ile Thr Cys His Arg Ala Gly Leu Thr Glu Pro Asp Ser Ser Pro
 340 345 350
 Leu Glu Leu Ser Glu Phe Leu Trp Val Asp Phe Val Val Glu Asn Ser
 355 360 365
 Thr Gly Gly Gly Val Ala Val Thr Arg Pro Val Thr Trp Gln Leu Glu
 370 375 380
 Tyr Pro Gly Gln Ala Pro Glu Ala Glu Lys Asp Lys Met Val Trp Glu
 385 390 395 400
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 405 410 415
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 420 425 430
 Gly Ala Pro
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<210> 310
 <211> 135
 <212> DNA
 <213> Homo sapiens

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 gcccgggacc gcgag 135

<210> 311
 <211> 458
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(458)
 <223> n = g, a, c or t

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 tgcggcggcc ggcacagagc tgaacagcga ctgcagcacg gaggagccgg ccacggagcc 120
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<210> 312
 <211> 322
 <212> DNA
 <213> Homo sapiens

<400> 312
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 gtggccattc ttgaggtcga ct 322

<210> 313
 <211> 419
 <212> DNA
 <213> Homo sapiens

<400> 313
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<210> 314
 <211> 458
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(458)
 <223> n = g, a, c or t

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<210> 315
 <211> 458
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)...(458)
 <223> n = g, a, c or t

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 cgggaccgcg aggtctgacc tcaagaatgg gcacaactct tcatctctgc ggcggnctgt 180

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<210> 316
 <211> 455
 <212> DNA
 <213> Homo sapiens

<400> 316						
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<210> 317
 <211> 457
 <212> DNA
 <213> Homo sapiens

<400> 317						
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<210> 318
 <211> 6579
 <212> DNA
 <213> Homo sapiens

<400> 318						
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 <212> PRT
 <213> Homo sapiens

<400> 319

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 Val Glu Thr Arg Pro Pro Pro Pro Pro Pro Pro Pro Pro Pro Pro Leu
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 Pro Pro Pro Ala His Leu Gly Arg Ser Pro Ala Gly Pro Pro Val Leu
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 Pro Ala Asn Ala Ser Leu Ser Ile Lys Leu Thr Ser Leu Pro His Lys
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 Gly Ala Arg Pro Ser Phe Thr Val His His Gln Pro Leu Pro Arg Leu
 1540 1545 1550
 Ala Leu Ala Gln Ala Ala Pro Gly Ile Pro Gln Ala Ser Ala Thr Gly
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6807

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35 40 45
Cys Met His Leu Leu Leu Glu Ala Val Pro Ala Val Ala Pro Gln Thr
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Ser Ile Leu Asp Leu Arg Phe Asn Arg Ile Arg Glu Ile Gln Pro Gly
65 70 75 80
Ala Phe Arg Arg Leu Arg Asn Leu Asn Thr Leu Leu Leu Asn Asn Asn
85 90 95
Gln Ile Lys Arg Ile Pro Ser Gly Ala Phe Glu Asp Leu Glu Asn Leu
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Lys Tyr Leu Tyr Leu Tyr Lys Asn Glu Ile Gln Ser Ile Asp Arg Gln
115 120 125
Ala Phe Lys Gly Leu Ala Ser Leu Glu Gln Leu Tyr Leu His Phe Asn
130 135 140
Gln Ile Glu Thr Leu Asp Pro Asp Ser Phe Gln His Leu Pro Lys Leu
145 150 155 160
Glu Arg Leu Phe Leu His Asn Asn Arg Ile Thr His Leu Val Pro Gly
165 170 175
Thr Phe Asn His Leu Glu Ser Met Lys Arg Leu Arg Leu Asp Ser Asn
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195 200 205
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370 375 380
Val Asp Pro Arg Val Asn Ile Thr Pro Ser Gly Gly Leu Tyr Ile Gln
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Asn Val Val Gln Gly Asp Ser Gly Glu Tyr Ala Cys Ser Ala Thr Asn
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Gly	Phe	Leu	Thr	Ile	Asn	Asp	Val	Gly	Pro	Ala	Asp	Ala	Gly	Arg	Tyr	
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Glu	Cys	Val	Ala	Arg	Asn	Thr	Ile	Gly	Ser	Ala	Ser	Val	Ser	Met	Val	
	595						600					605				
Leu	Ser	Val	Asn	Val	Pro	Asp	Val	Ser	Arg	Asn	Gly	Asp	Pro	Phe	Val	
	610					615					620					
Ala	Thr	Ser	Ile	Val	Glu	Ala	Ile	Ala	Thr	Val	Asp	Arg	Ala	Ile	Asn	
625					630					635					640	
Ser	Thr	Arg	Thr	His	Leu	Phe	Asp	Ser	Arg	Pro	Arg	Ser	Pro	Asn	Asp	
				645					650					655		
Leu	Leu	Ala	Leu	Phe	Arg	Tyr	Pro	Arg	Asp	Pro	Tyr	Thr	Val	Glu	Gln	
		660						665					670			
Ala	Arg	Ala	Gly	Glu	Ile	Phe	Glu	Arg	Thr	Leu	Gln	Leu	Ile	Gln	Glu	
		675					680					685				
His	Val	Gln	His	Gly	Leu	Met	Val	Asp	Leu	Asn	Gly	Thr	Ser	Tyr	His	
	690					695					700					
Tyr	Asn	Asp	Leu	Val	Ser	Pro	Gln	Tyr	Leu	Asn	Leu	Ile	Ala	Asn	Leu	
705					710					715					720	
Ser	Gly	Cys	Thr	Ala	His	Arg	Arg	Val	Asn	Asn	Cys	Ser	Asp	Met	Cys	
				725					730					735		
Phe	His	Gln	Lys	Tyr	Arg	Thr	His	Asp	Gly	Thr	Cys	Asn	Asn	Leu	Gln	
			740					745					750			
His	Pro	Met	Trp	Gly	Ala	Ser	Leu	Thr	Ala	Phe	Glu	Arg	Leu	Leu	Lys	
		755					760					765				
Ser	Val	Tyr	Glu	Asn	Gly	Phe	Asn	Thr	Pro	Arg	Gly	Ile	Asn	Pro	His	
	770				775						780					
Arg	Leu	Tyr	Asn	Gly	His	Ala	Leu	Pro	Met	Pro	Arg	Leu	Val	Ser	Thr	
785					790					795					800	
Thr	Leu	Ile	Gly	Thr	Glu	Thr	Val	Thr	Pro	Asp	Glu	Gln	Phe	Thr	His	
				805					810					815		
Met	Leu	Met	Gln	Trp	Gly	Gln	Phe	Leu	Asp	His	Asp	Leu	Asp	Ser	Thr	
			820					825					830			
Val	Val	Ala	Leu	Ser	Gln	Ala	Arg	Phe	Ser	Asp	Gly	Gln	His	Cys	Ser	
		835				840					845					
Asn	Val	Cys	Ser	Asn	Asp	Pro	Pro	Cys	Phe	Ser	Val	Met	Ile	Pro	Pro	
	850					855					860					
Asn	Asp	Ser	Arg	Ala	Arg	Ser	Gly	Ala	Arg	Cys	Met	Phe	Phe	Val	Arg	
865					870					875					880	
Ser	Ser	Pro	Val	Cys	Gly	Ser	Gly	Met	Thr	Ser	Leu	Leu	Met	Asn	Ser	
				885					890					895		

Val	Tyr	Pro	Arg	Glu	Gln	Ile	Asn	Gln	Leu	Thr	Ser	Tyr	Ile	Asp	Ala		
			900					905					910				
Ser	Asn	Val	Tyr	Gly	Ser	Thr	Glu	His	Glu	Ala	Arg	Ser	Ile	Arg	Asp		
		915					920					925					
Leu	Ala	Ser	His	Arg	Gly	Leu	Leu	Arg	Gln	Gly	Ile	Val	Gln	Arg	Ser		
		930					935					940					
Gly	Lys	Pro	Leu	Leu	Pro	Phe	Ala	Thr	Gly	Pro	Pro	Thr	Glu	Cys	Met		
945					950					955					960		
Arg	Asp	Glu	Asn	Glu	Ser	Pro	Ile	Pro	Cys	Phe	Leu	Ala	Gly	Asp	His		
			965						970					975			
Arg	Ala	Asn	Glu	Gln	Leu	Gly	Leu	Thr	Ser	Met	His	Thr	Leu	Trp	Phe		
			980					985					990				
Arg	Glu	His	Asn	Arg	Ile	Ala	Thr	Glu	Leu	Leu	Lys	Leu	Asn	Pro	His		
		995					1000					1005					
Trp	Asp	Gly	Asp	Thr	Ile	Tyr	Tyr	Glu	Thr	Arg	Lys	Ile	Val	Gly	Ala		
	1010				1015						1020						
Glu	Ile	Gln	His	Ile	Thr	Tyr	Gln	His	Trp	Leu	Pro	Lys	Ile	Leu	Gly		
1025					1030					1035					1040		
Glu	Val	Gly	Met	Arg	Thr	Leu	Gly	Glu	Tyr	His	Gly	Tyr	Asp	Pro	Gly		
			1045						1050					1055			
Ile	Asn	Ala	Gly	Ile	Phe	Asn	Ala	Phe	Ala	Thr	Ala	Ala	Phe	Arg	Phe		
		1060					1065						1070				
Gly	His	Thr	Leu	Val	Asn	Pro	Leu	Leu	Tyr	Arg	Leu	Asp	Glu	Asn	Phe		
		1075				1080					1085						
Gln	Pro	Ile	Ala	Gln	Asp	His	Leu	Pro	Leu	His	Lys	Ala	Phe	Phe	Ser		
	1090				1095						1100						
Pro	Phe	Arg	Ile	Val	Asn	Glu	Gly	Gly	Ile	Asp	Pro	Leu	Leu	Arg	Gly		
1105					1110					1115					1120		
Leu	Phe	Gly	Val	Ala	Gly	Lys	Met	Arg	Val	Pro	Ser	Gln	Leu	Leu	Asn		
			1125						1130						1135		
Thr	Glu	Leu	Thr	Glu	Arg	Leu	Phe	Ser	Met	Ala	His	Thr	Val	Ala	Leu		
		1140					1145						1150				
Asp	Leu	Ala	Ile	Asn	Ile	Gln	Arg	Gly	Arg	Asp	His	Gly	Ile	Pro			
	1155					1160					1165						
Pro	Tyr	His	Asp	Tyr	Arg	Val	Tyr	Cys	Asn	Leu	Ser	Ala	Ala	His	Thr		
	1170					1175					1180						
Phe	Glu	Asp	Leu	Lys	Asn	Glu	Ile	Lys	Asn	Pro	Glu	Ile	Arg	Glu	Lys		
1185					1190					1195					1200		
Leu	Lys	Arg	Leu	Tyr	Gly	Ser	Thr	Leu	Asn	Ile	Asp	Leu	Phe	Pro	Ala		
			1205						1210						1215		
Leu	Val	Val	Glu	Asp	Leu	Val	Pro	Gly	Ser	Arg	Leu	Gly	Pro	Thr	Leu		
		1220						1225					1230				
Met	Cys	Leu	Ser	Thr	Gln	Phe	Lys	Arg	Leu	Arg	Asp	Gly	Asp	Arg			
	1235					1240					1245						
Leu	Trp	Tyr	Glu	Asn	Pro	Gly	Val	Phe	Ser	Pro	Ala	Gln	Leu	Thr	Gln		
	1250					1255					1260						
Ile	Lys	Gln	Thr	Ser	Leu	Ala	Arg	Ile	Leu	Cys	Asp	Asn	Ala	Asp	Asn		
1265					1270					1275					1280		
Ile	Thr	Arg	Val	Gln	Ser	Asp	Val	Phe	Arg	Val	Ala	Glu	Phe	Pro	His		
			1285						1290					1295			
Gly	Tyr	Gly	Ser	Cys	Asp	Glu	Ile	Pro	Arg	Val	Asp	Leu	Arg	Val	Trp		
		1300						1305					1310				
Gln	Asp	Cys	Glu	Asp	Cys	Arg	Thr	Arg	Gly	Gln	Phe	Asn	Ala	Phe			
		1315				1320					1325						
Ser	Tyr	His	Phe	Arg	Gly	Arg	Arg	Ser	Leu	Glu	Phe	Ser	Tyr	Gln	Glu		
	1330					1335					1340						
Asp	Lys	Pro	Thr	Lys	Lys	Thr	Arg	Pro	Arg	Lys	Ile	Pro	Ser	Val	Gly		
1345					1350					1355					1360		
Arg	Gln	Gly	Glu	His	Leu	Ser	Asn	Ser	Thr	Ser	Ala	Phe	Ser	Thr	Arg		
			1365						1370						1375		

Ser Asp Ala Ser Gly Thr Asn Asp Phe Arg Glu Phe Val Leu Glu Met
1380 1385 1390
Gln Lys Thr Ile Thr Asp Leu Arg Thr Gln Ile Lys Lys Leu Glu Ser
1395 1400 1405
Arg Leu Ser Thr Thr Glu Cys Val Asp Ala Gly Gly Glu Ser His Ala
1410 1415 1420
Asn Asn Thr Lys Trp Lys Lys Asp Ala Cys Thr Ile Cys Glu Cys Lys
1425 1430 1435 1440
Asp Gly Gln Val Thr Cys Phe Val Glu Ala Cys Pro Pro Ala Thr Cys
1445 1450 1455
Ala Val Pro Val Asn Ile Pro Gly Ala Cys Cys Pro Val Cys Leu Gln
1460 1465 1470
Lys Arg Ala Glu Lys Pro
1475

<210> 326
<211> 780
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(780)
<223> n = g, a, c or t

<400> 326
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aaaactccca gttgcatatt gcatcctatn accaatgggc tttgctgcac attttttcca 120
catggtggag tcattgccac agggacaaga gatggccaen tccagttctg gacagctcct 180
agggtcctgt cctcactgaa ggcacttatg ccggaaagcc cttcgaagtt tcctaacaac 240
ttaccaagtc ctagcactgc ctatccccaa gaaaatgaaa gagtctctca catacaggac 300
ttttgttaag caacaccagc atcttgtgct tctttggtga gcaggtaaatt cgtcctgtca 360
aggagattgc tggaaataatg ggccaaacat ctgggtcttg attgaaatag cacttttctt 420
gggattgtga atagaatgta gcaaaaccag attccagtgt actagtcatg gatctttctc 480
tccttgatc gtgaaagtca gcttagagga agagatccac ttgcaccggc acagagccgc 540
ggagaaccag cgacactggg agcacgggtg caacggccct ggcggctctc ctgtacagct 600
cgtcangccg agagaaggcc aaaatncggg aaacctgatg gaatcgccct tagtgagggt 660
atccagaact ggcaacatgc canaaacggt accgggtaaa ctgttcccccc ccatccccaa 720
aaaacnaca aaggaccggc ccncacataa caacacacaa aagcgcacan ccatcacaga 780

<210> 327
<211> 333
<212> DNA
<213> Homo sapiens

<400> 327
ggcttgtacc ttgccacggt ggcagatgac agactcctca ggatctgggc cctggaactg 60
aaaactccca ttgcatttgc tcctatgacc aatgggcttt gctgcacatt ttttccacat 120
ggtggagtca ttgccacagg gacaagagat ggccacgtcc agttctggac agtcctagg 180
gtcctgtcct cactgaagca cttatgccg aaagcccttc gaagtttctt aacaacttac 240
caagtccatg cactgccaat cccaagaaa atgaaagagt tcctcacata caggactttt 300
ttaagcaaca ccacatcttg tgcttctttg tag 333

<210> 328
<211> 781
<212> DNA
<213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(781)
 <223> n = g, a, c or t

<400> 328
 cggntctgtt gccgtgcaag tggaatcatc ttacctctaa gacatgactt tcacatgcca 60
 ggggagagaa agatccatga ctagtacact ggcaatctgg ttttgctaca ttctattcac 120
 aatccnaag aaatgctatt tcaatgcaag accagatgtt tggcccatta ttccagcaac 180
 tccctttgac aggacgattt accctgctac aacagaagca cacagatgtg gtgttgctta 240
 aaaaagtcct gtactgtgag gaactctttc acttttcttg gggattggcc acgtgctatg 300
 gacttaggta agttgttcag gaaacttcgc aagggttttc cggcataagt gctatcagt 360
 aggacaggac ctagtgagc tgtccagaac tggacgtggc catctcttgt ccctgtggcc 420
 aatgactcca ccatgtggaa tacatgtncg gcaaagccca ttggtcataa gaacaaaatg 480
 caatcgggag ttncagggtc cagggggccc agatcctgag ggaggtcntg tgcaatctgc 540
 cagcgtggca aggttaccaa gccccgana aaaccccaga gcaacaaggt ggggtctcaga 600
 atnagaatca agcggggccg tccganacta gccttcgcag ggggtcctgaa atactcacca 660
 aagggncggc aaataagggg gggcacattc gtttcaaaac ctgcccga aaagacncct 720
 aggatgaang gctacaaatg accagcgtga gaaacactgg ccncgcagac cccgggggtga 780
 c 781

<210> 329
 <211> 544
 <212> DNA
 <213> Homo sapiens

<400> 329
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 ggggagagaa agatccatga ctagtacact ggcaatctgg ttttgctaca ttctattcac 120
 aatcccaaag aaatgctatt tcaatgcaag accagatgtt tggcccatta ttccagcaac 180
 tccctttgac aggacgattt accctgctac caaagaagca caagatgtgg tggttgctta 240
 aaaagtcctg tatgtgagga actctttcat tttcttgggg attggcagtg ctaggacttg 300
 gtaagttgtt aggaacttc gaagggtctt ccggcataag tgcttcagtg aggacaggac 360
 ctagaggact gtccagaact ggacgtggcc atctcttgct cctgtggcaa tgactccacc 420
 atgtggaaaa aatgtgcagc aaagccattt ggtcatagga gcaaagtcaa tgggagtttt 480
 cagttccagg gccagatcc tgaggagtct gtcactctgc accgtggcaa ggtacaagcc 540
 cccg 544

<210> 330
 <211> 2610
 <212> DNA
 <213> Homo sapiens

<400> 330
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 cctccatgga ggccggagag gaaccgctgc tgctggccga actcaagccc gggcgcccc 120
 accagtttga ttggaagtcc agctgtgaaa cctggagcgt cgccttctcc ccagatggct 180
 cctggtttgc ttggtctcaa ggacactgca tcgtcaaaact gatcccttg ccgttgagg 240
 agcagttcat ccctaaaggg tttgaagcca aaagccgaag tagcaaaaat gagacgaaag 300
 ggcggggcag cccaaaagag aagacgctgg actgtgtgca gattgtctgg gggctggcct 360
 tcagcccgtg gccttcccc cccagcagga agctctgggc acgccaccac cccaagtgc 420
 ccgatgtctc ttgctggtt cttgctacgg gactcaacga tgggcagatc aagatctggg 480
 aggtgcagac agggctcctg cttttgaatc tttccggcca ccaagatgtc gtgagagatc 540
 tgagcttcac acccagtggc agtttgattt tggctctccg gtcacgggat aagactcttc 600
 gcatctggga cctgaataaa cacggtaaac agattcaagt gttatcgggc cacctgcagt 660
 gggtttactg ctgttccatc tccccagact gcagcatgct gtgctctgca gctggagaga 720
 agtcggtctt tctatggagc atgaggctct acacgttaat tcggaagcta gagggccatc 780
 aaagcagtggt tgtctcttgt gacttctccc ccgactctgc cctgcttgtc acggcttctt 840
 acgataccaa tgtgattatg tgggaccctt acaccggcga aaggctgagg tcaactccacc 900
 acaccagggt tgaccccgcc atggatgaca gtgacgtcca cattagctca ctgagatctg 960
 tgtgcttctc tccagaaggc ttgtaccttg ccacgggtggc agatgacaga ctctcagga 1020

tctggggccct	ggaactgaaa	actcccattg	catttgctcc	tatgaccaat	gggctttgct	1080
gcacatTTTT	tccacatggg	ggagtcattg	ccacagggac	aagagatggc	cacgtccagt	1140
tctggacagc	tcctaggggt	ctgtcctcac	tgaagcactt	atgccggaaa	gcccttcgaa	1200
gtttcctaac	aacttaccaa	gtcctagcac	tgccaatccc	caagaaaatg	aaagagtcc	1260
tcacatacag	gactttttta	gcaacaccac	atcttgtgct	tctttgtagc	agggtaaatc	1320
gtcctgtcaa	agggagttgc	tggaataatg	ggccaaacat	ctgggtcttg	attgaaatag	1380
catttctttg	ggattgtgaa	tagaatgtag	caaaaccaga	ttccagtgtg	ctagtcattg	1440
atctttctct	ccctggcatg	tgaaagttag	tcttagagga	agagattcca	cttgcacggc	1500
aacagagcct	tacgttaaat	tttcagtcca	gttatgaaca	gcaagtgttg	aactctttct	1560
gcttgTTTTg	attcaaagtg	cagttactga	tggtgttttg	attatgcaac	taagtagggc	1620
tccagagcct	ctctagtggc	agagcagctc	acactccctc	cgctgggaac	gatgggttct	1680
gcctagtacc	tatccttggt	tttctgatgc	agtggtagca	ttggttcaag	ttctctcctg	1740
ctgtgggtcag	agttgcttcg	atgttggcca	agtgttttct	ttcttgggct	cccttctgac	1800
ctgcaggaca	gttttcctgg	agccatttgg	tatgaggtat	taatttagct	taactaaatt	1860
acaggggact	cagaggccgt	gtcctgacc	gatccagaca	ctattactgg	cttttttttt	1920
tttttaacaa	tggtgtgcat	gtgcaggaaa	tgacaaattt	gtatgtcaga	ttatacaagg	1980
atgtattctt	aaaccgcatg	actattcaga	tggctactga	gttatcagtg	gccatttatt	2040
agcatcatat	ttatttgtat	tttctcaaca	gatgttaagg	tacaactgtg	tttttctcga	2100
ttatctaaaa	accatagtac	ttaaattgaa	cagttgcaaa	gatgtcttaa	ttgtgtaaaag	2160
aattgggtgta	gtcatgactt	tagctgatac	tcttatgtac	gagatctgtc	tctgctgttt	2220
aacttcattg	gattaatcag	ctggtttcaa	ctctactgcg	aaacaaaaat	agctccttaa	2280
aagtactgtt	ctccttcagt	ggcatgtagt	tatctaatac	agacacctca	ttcaaacaaa	2340
acctgcctta	ggaaaattta	atatatttta	aattatttta	aaagaaatac	aacatcttat	2400
tcttttagctt	tcttaatcgg	tgctttatgg	aggccagtgt	aacgttacat	gactcgttga	2460
gaaagttgag	gaatttcctc	taccaccttt	gttgcttgaa	gaaaaacatg	tcttttcaaa	2520
atgagaggct	ttcattgaag	aaaagaaaaa	aacaacagtt	aaaaaaaaaa	aaaaaaaaaa	2580
aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa				2610

<210> 331
 <211> 404
 <212> PRT
 <213> Homo sapiens

<400> 331

Met	Glu	Ala	Gly	Glu	Glu	Pro	Leu	Leu	Leu	Ala	Glu	Leu	Lys	Pro	Gly
1				5				10						15	
Arg	Pro	His	Gln	Phe	Asp	Trp	Lys	Ser	Ser	Cys	Glu	Thr	Trp	Ser	Val
			20					25					30		
Ala	Phe	Ser	Pro	Asp	Gly	Ser	Trp	Phe	Ala	Trp	Ser	Gln	Gly	His	Cys
		35					40					45			
Ile	Val	Lys	Leu	Ile	Pro	Trp	Pro	Leu	Glu	Glu	Gln	Phe	Ile	Pro	Lys
	50					55					60				
Gly	Phe	Glu	Ala	Lys	Ser	Arg	Ser	Ser	Lys	Asn	Glu	Thr	Lys	Gly	Arg
65					70					75				80	
Gly	Ser	Pro	Lys	Glu	Lys	Thr	Leu	Asp	Cys	Gly	Gln	Ile	Val	Trp	Gly
			85					90					95		
Leu	Ala	Phe	Ser	Pro	Trp	Pro	Ser	Pro	Pro	Ser	Arg	Lys	Leu	Trp	Ala
			100					105					110		
Arg	His	His	Pro	Gln	Val	Pro	Asp	Val	Ser	Cys	Leu	Val	Leu	Ala	Thr
		115					120					125			
Gly	Leu	Asn	Asp	Gly	Gln	Ile	Lys	Ile	Trp	Glu	Val	Gln	Thr	Gly	Leu
	130					135					140				
Leu	Leu	Leu	Asn	Leu	Ser	Gly	His	Gln	Asp	Val	Val	Arg	Asp	Leu	Ser
145					150					155				160	
Phe	Thr	Pro	Ser	Gly	Ser	Leu	Ile	Leu	Val	Ser	Ala	Ser	Arg	Asp	Lys
			165					170					175		
Thr	Leu	Arg	Ile	Trp	Asp	Leu	Asn	Lys	His	Gly	Lys	Gln	Ile	Gln	Val
		180					185					190			
Leu	Ser	Gly	His	Leu	Gln	Trp	Val	Tyr	Cys	Cys	Ser	Ile	Ser	Pro	Asp
	195						200					205			

Cys Ser Met Leu Cys Ser Ala Ala Gly Glu Lys Ser Val Phe Leu Trp
 210 215 220
 Ser Met Arg Ser Tyr Thr Leu Ile Arg Lys Leu Glu Gly His Gln Ser
 225 230 235 240
 Ser Val Val Ser Cys Asp Phe Ser Pro Asp Ser Ala Leu Leu Val Thr
 245 250 255
 Ala Ser Tyr Asp Thr Asn Val Ile Met Trp Asp Pro Tyr Thr Gly Glu
 260 265 270
 Arg Leu Arg Ser Leu His His Thr Gln Val Asp Pro Ala Met Asp Asp
 275 280 285
 Ser Asp Val His Ile Ser Ser Leu Arg Ser Val Cys Phe Ser Pro Glu
 290 295 300
 Gly Leu Tyr Leu Ala Thr Val Ala Asp Asp Arg Leu Leu Arg Ile Trp
 305 310 315 320
 Ala Leu Glu Leu Lys Thr Pro Ile Ala Phe Ala Pro Met Thr Asn Gly
 325 330 335
 Leu Cys Cys Thr Phe Phe Pro His Gly Gly Val Ile Ala Thr Gly Thr
 340 345 350
 Arg Asp Gly His Val Gln Phe Trp Thr Ala Pro Arg Val Leu Ser Ser
 355 360 365
 Leu Lys His Leu Cys Arg Lys Ala Leu Arg Ser Phe Leu Thr Thr Tyr
 370 375 380
 Gln Val Leu Ala Leu Pro Ile Pro Lys Lys Met Lys Glu Phe Leu Thr
 385 390 395 400
 Tyr Arg Thr Phe

<210> 332
 <211> 257
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(257)
 <223> n = g, a, c or t

<400> 332
 cgtctgcctg ccactggtgc gggcgcgacg cctcgggcac gtaggctggc ttcctccgcc 60
 gcagggtctt tgnccggtaa aaccttggtc atgggtgccc caccgctctg gctccgtcct 120
 gcagggtttc ctggggggcc ccggggcccc cacaaggggg actggggggc aggggtgccg 180
 ttcaagggcc ccccttcctt tgttacaggc ttcggtccaa tgcngagaag gaaaggggcg 240
 aaattcncgt cagaata 257

<210> 333
 <211> 821
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(821)
 <223> n = g, a, c or t

<400> 333
 cgtctgcctg ccactggtgc gggcgcgacg cctcgggcac gtaggctggc ttcctccgcc 60
 gcagggtctg ccgtaacttg ttcattggtg cccgccccgt ctggctccgt cctgcagggt 120
 tctggaggcc accgttgcca tcgggcctat gggcgggcct tccttcctt tgttaccagg 180
 ccttcagggt ccccaatagc ccgggaagga agaaaacggg ggcggaaatt tccttgcca 240
 ggagttattc ccnatttcaa acaaacttgg gccgggggac ccggagtttc cgaaagcnc 300
 atatttgnca aatttcataa ggagaagggg gggggcccc acaaaatttt tcggcagccc 360
 cctttaattt anggtttgag aaaggatttc cgggtaattt ttacaccaa atttttcaac 420

tttgtggggc	gcccaggata	cagaggatat	ttaaaacaca	aaaaacggcg	gggtancagg	480
ggtntggggg	cctttggggg	ggagagaaga	aaaacccgcc	cccctttttg	tgggccgngg	540
nttttataac	gcccccccg	anaaaatcct	tttataaaat	ttccatgcga	gccgcccgtt	600
ttttttnggn	gtgagagagg	gacaggagca	caaataat	ttccccccgc	cctntttatt	660
tttttaccga	gggcgcccc	aanaggcggt	attggggacg	cggccgggtt	acaaaataat	720
aatgacgctg	cgagaaaaaa	tagagaaaag	ggtggccccc	cccctgcgga	gaanaacccc	780
gcgnggnag	atattacttg	gcagggagcg	ccccttttta	t		821

<210> 334
 <211> 502
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(502)
 <223> n = g, a, c or t

<400> 334						
cgtctgcctg	ccactggtgc	gggcgcgacg	cctcgggcac	gtaggctggc	ttcctccgcc	60
gcaggctctg	ccgtaacttg	ttcatggtgc	ccgccccgt	ctggctccgt	cctgcagggt	120
ttctgggggc	cccggggccc	ccaacaagg	ggggccttg	gggggccagg	gttgccggag	180
aagcccaagg	caacacttgg	ngaaagccca	accgntagg	cacaaccggg	gccacttatn	240
ggcganggag	ccatnacaca	ttcccttttg	gttaccacaag	ggcanatccg	gatccccaat	300
ttgcaccggg	anatggaaag	caaaaggggg	cgccggaaaa	aatttccttt	gcccagggat	360
taatttcccc	aaattccaaa	cacaccctgt	ggtggcacgg	gngaccacgg	aattccgaaa	420
aggccnattt	tggcccatat	tcttttaggg	aaaggggggg	cccccccaa	aagaattttg	480
ttcngggccc	cccatatata	aa				502

<210> 335
 <211> 657
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(657)
 <223> n = g, a, c or t

<400> 335						
cgtctgcctg	ccactggtgc	gtggcgcgac	gcctcgggca	cgtaggctgg	cttcctccgc	60
cgcaggctct	gccgttaaac	ttgttcattg	gtgcccggcc	cgttcttggc	ctccgtccct	120
tgcaggtttc	tgggggggccc	ggngggggccc	ccaaacaagg	gggtggcttt	ggaagcccca	180
accgggttgc	caacnccggac	actatggggg	gacctttcac	attccttttg	ttaccaggct	240
tcggttcaca	attggcccga	aggaaagaaa	agggggcgcg	gaaatttcct	tgtgcccaagg	300
atttttattcc	ccaattttca	agcgaccgtt	gggcccggga	ccccggactc	cgaagccatt	360
tggcaattct	atnagggaaa	gggngggccc	caaaatttcg	cggaccctat	aaataagatt	420
gagcagactc	gggtaattta	taacaaattt	taccacaacg	cgttgttggg	gacccccggg	480
tatactgcag	gttatattt	ataaccanaa	aaggcggtga	tattccangt	agttgtggaa	540
aacctgttgt	ggnggggaaa	caaaaaaaaa	caacaccccc	cccctttttt	ggggtanggc	600
cgggtgattt	ttataacaac	ccccccagcc	aaaaagaagc	cgctttttnt	aanaaag	657

<210> 336
 <211> 169
 <212> DNA
 <213> Homo sapiens

<400> 336						
cgaggaggct	cgcgcgctg	catcccgac	catccccag	ccccagaaa	cctgcaggac	60
ggagccagac	ggggtgggca	ccatgaacaa	gttacggcag	agcctgcggc	ggaggaagcc	120
agcctacgtg	cccaggggcc	gtcgcgccc	aaccagtggc	aggcagacg		169

<210> 337
 <211> 169
 <212> DNA
 <213> Homo sapiens

<400> 337	
cgtctgcctg ccactgggtgc gggcgcgacg cctcggggcac gtaggctggc ttctctccgcc	60
gcaggctctg ccggttaactt gttcatgggtg cccaccccgct ctggctccgt cctgcagggtt	120
tctgggggct ggggggatggt gcgggatgca acgcgcgcga gcttcctcg	169

<210> 338
 <211> 160
 <212> DNA
 <213> Homo sapiens

<400> 338	
cgtctgcctg ccactgggtgc gggcgcgacg cctcggggcac gtaggctggc ttctctccgcc	60
gcaggctctg ccgtaacttg ttcattgggtg ccgccccgtc tggctccgtc ctgcagggtt	120
ctgggggatg gtgcgggatg cacgcgcgcg agcctcctcg	160

<210> 339
 <211> 159
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(159)
 <223> n = g, a, c or t

<400> 339	
cgaggaggct cgcgcgcgtg catcccgncac catccccag aaacctgcag gacggagcca	60
gacggggcgg gcaccatgaa caagttacgg cagagcctgc ggcggaggaa gccagcctac	120
gtgcccgagg cgtcgcgcgc gaccagtggc aggcagacg	159

<210> 340
 <211> 1830
 <212> DNA
 <213> Homo sapiens

<400> 340	
atgtcccga ggcgcggcggc cagcggcgga ccccgaggc ctgagcggca cctgccccca	60
gccccctgtg gggccccggg gccccagaa acctgcagga cggagccaga cggggcgggc	120
accatgaaca agttacggca gaggctgcgg cggaggaagc cagcctacgt gcccgaggcg	180
tcgcgcccgc accagtggca ggcagacgag gacgcggtgc ggaagggcac gtgcagcttc	240
ccggtcaggt acctgggtca cgtggaggta gaggagtccc ggggaatgca cgtgtgtgaa	300
gatgcggtga agaagctgaa ggcgatgggc cgaaagtccg tgaagtctgt cctgtgggtg	360
tcagccgatg ggctccgagt ggtggacgac aaaaccaagg atcttcttgt cgaccagacc	420
atcgaaaagg tctccttttg tgctcctgac cgcaacctgg acaaggcttt ctctatatc	480
tgctgtgacg ggactaccgc ccgctggatc tgccactgtt ttctggcact gaaggactcc	540
ggcgagaggc tgagccacgc tgtgggctgt gcttttgccg cctgcctgga gcgaaaacag	600
cgcgaggaga aggaatgtgg ggtcacggcc gccttcgatg ccagccgcac cagcttcgcc	660
cgcgagggct ccttcgcct gtctgggggt gggcggcctg ctgagcgaga ggccccggac	720
aagaagaaaag cagaggcagc agctgcccc actgtggctc ctggccctgc ccagcctggg	780
cacgtgtccc cgacaccagc caccacatcc cctggtgaga aggggtgagg aggcaccctt	840
gtggctgcag gcaccactgc ggccgccatc ccccggcgcc atgcaccctt ggagcagctg	900
gttcgccagg gctccttcgc tgggttccca gcactcagcc agaagaactc gcctttcaaa	960
cggcagctga gcctacggct gaatgagctg ccatccacgc tgcagcgccg cactgacttc	1020
caggtgaagg gcacagtgcc tgagatggag cctcctgggt cggcgacag tgacagcatc	1080
aacgctctgt gcacacagat cagttcatct tttgccagt ctggagcgcc agcaccaggg	1140
ccaccacctg ccacaacagg gacttctgcc tggggtgagc cctccgtgcc cctgcagct	1200

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gccttcacgc ctgggcacaa gcgacacct tcagaggctg agcgatggct ggaggaggtg 1260
tcacaggtgg ccaaggccca gcagcagcag cagcagcaac agcaacagca gcagcagcag 1320
cagcagcaac agcagcaagc agcctcagtg gccccagtgc ccaccatgcc tcctgccttg 1380
cagcctttcc ccgccccctg gggggccttt gacgtgcac ctgcccgaagt ggccgtgttc 1440
ctgccacccc cacacatgca gccccctttt gtgccgcct acccgggctt gggctaccca 1500
ccgatgcccc ggggtgccgt ggtgggcatc acaccctcac agatgggtggc aaacgccttc 1560
tgctcagccg cccagctcca gcctcagcct gccactctgc ttgggaaagc tggggccttc 1620
ccgccccctg ccataccagc tgccccctggg agccaggccc gccctcgccc caatggggcc 1680
ccctggcccc ctgagccagc gcctgccccca gctccagagt tggacccctt tgaggcccag 1740
tgggcggcat tagaaggcaa agccactgta gagaaaccct ccaaccctt ttctggtgac 1800
ctgcaaaaga cattcgagat tgaactgtag 1830

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<210> 341
<211> 609
<212> PRT
<213> Homo sapiens

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<400> 341
Met Ser Arg Ser Ala Ala Ala Ser Gly Gly Pro Arg Arg Pro Glu Arg
1      5      10      15
His Leu Pro Pro Ala Pro Cys Gly Ala Pro Gly Pro Pro Glu Thr Cys
20     25     30
Arg Thr Glu Pro Asp Gly Ala Gly Thr Met Asn Lys Leu Arg Gln Ser
35     40     45
Leu Arg Arg Arg Lys Pro Ala Tyr Val Pro Glu Ala Ser Arg Pro His
50     55     60
Gln Trp Gln Ala Asp Glu Asp Ala Val Arg Lys Gly Thr Cys Ser Phe
65     70     75     80
Pro Val Arg Tyr Leu Gly His Val Glu Val Glu Glu Ser Arg Gly Met
85     90     95
His Val Cys Glu Asp Ala Val Lys Lys Leu Lys Ala Met Gly Arg Lys
100    105    110
Ser Val Lys Ser Val Leu Trp Val Ser Ala Asp Gly Leu Arg Val Val
115    120    125
Asp Asp Lys Thr Lys Asp Leu Leu Val Asp Gln Thr Ile Glu Lys Val
130    135    140
Ser Phe Cys Ala Pro Asp Arg Asn Leu Asp Lys Ala Phe Ser Tyr Ile
145    150    155    160
Cys Arg Asp Gly Thr Thr Arg Arg Trp Ile Cys His Cys Phe Leu Ala
165    170    175
Leu Lys Asp Ser Gly Glu Arg Leu Ser His Ala Val Gly Cys Ala Phe
180    185    190
Ala Ala Cys Leu Glu Arg Lys Gln Arg Arg Glu Lys Glu Cys Gly Val
195    200    205
Thr Ala Ala Phe Asp Ala Ser Arg Thr Ser Phe Ala Arg Glu Gly Ser
210    215    220
Phe Arg Leu Ser Gly Gly Gly Arg Pro Ala Glu Arg Glu Ala Pro Asp
225    230    235    240
Lys Lys Lys Ala Glu Ala Ala Ala Pro Thr Val Ala Pro Gly Pro
245    250    255
Ala Gln Pro Gly His Val Ser Pro Thr Pro Ala Thr Thr Ser Pro Gly
260    265    270
Glu Lys Gly Glu Ala Gly Thr Pro Val Ala Ala Gly Thr Thr Ala Ala
275    280    285
Ala Ile Pro Arg Arg His Ala Pro Leu Glu Gln Leu Val Arg Gln Gly
290    295    300
Ser Phe Arg Gly Phe Pro Ala Leu Ser Gln Lys Asn Ser Pro Phe Lys
305    310    315    320
Arg Gln Leu Ser Leu Arg Leu Asn Glu Leu Pro Ser Thr Leu Gln Arg
325    330    335

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Arg Thr Asp Phe Gln Val Lys Gly Thr Val Pro Glu Met Glu Pro Pro
 340 345 350
 Gly Ala Gly Asp Ser Asp Ser Ile Asn Ala Leu Cys Thr Gln Ile Ser
 355 360 365
 Ser Ser Phe Ala Ser Ala Gly Ala Pro Ala Pro Gly Pro Pro Pro Ala
 370 375 380
 Thr Thr Gly Thr Ser Ala Trp Gly Glu Pro Ser Val Pro Pro Ala Ala
 385 390 395 400
 Ala Phe Gln Pro Gly His Lys Arg Thr Pro Ser Glu Ala Glu Arg Trp
 405 410 415
 Leu Glu Glu Val Ser Gln Val Ala Lys Ala Gln Gln Gln Gln Gln Gln
 420 425 430
 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Ala Ala
 435 440 445
 Ser Val Ala Pro Val Pro Thr Met Pro Pro Ala Leu Gln Pro Phe Pro
 450 455 460
 Ala Pro Val Gly Pro Phe Asp Ala Ala Pro Ala Gln Val Ala Val Phe
 465 470 475 480
 Leu Pro Pro Pro His Met Gln Pro Pro Phe Val Pro Ala Tyr Pro Gly
 485 490 495
 Leu Gly Tyr Pro Pro Met Pro Arg Val Pro Val Val Gly Ile Thr Pro
 500 505 510
 Ser Gln Met Val Ala Asn Ala Phe Cys Ser Ala Ala Gln Leu Gln Pro
 515 520 525
 Gln Pro Ala Thr Leu Leu Gly Lys Ala Gly Ala Phe Pro Pro Pro Ala
 530 535 540
 Ile Pro Ser Ala Pro Gly Ser Gln Ala Arg Pro Arg Pro Asn Gly Ala
 545 550 555 560
 Pro Trp Pro Pro Glu Pro Ala Pro Ala Pro Glu Leu Asp Pro
 565 570 575
 Phe Glu Ala Gln Trp Ala Ala Leu Glu Gly Lys Ala Thr Val Glu Lys
 580 585 590
 Pro Ser Asn Pro Phe Ser Gly Asp Leu Gln Lys Thr Phe Glu Ile Glu
 595 600 605
 Leu

<210> 342
 <211> 290
 <212> DNA
 <213> Homo sapiens

<400> 342
 cgcgggatgt cgtactcgtc ctgctccggc tgggcggcct cgtatacata gccctgcccc 60
 acgcgggtgg gcaccaccac ctttgccggg ggcttcgtgc cctcccagct gcgtgtgtcc 120
 atggacgggg ggacctggtg gatgtcatgc cccatcccg cagaagggtg cacctggtaa 180
 atatcctggg cagggcctcc aggccttggg ggcacctggt acaggtctgt ggccgggctg 240
 ggaaacgggt gatggggtgt ctgcttcgag aaggtggatg tctgcttggc 290

<210> 343
 <211> 291
 <212> DNA
 <213> Homo sapiens

<400> 343
 gccaaagcaga catccacctt ctggaagcag acaccccatc acccgtttcc cagcccggcc 60
 acagacctgt accaggtgcc cccagggcct ggaggccctg cccaggatat ttaccaggtg 120
 ccaccttctg ccgggatggg gcatgacatc taccaggtcc ccccgatcca tggacacacg 180
 cagctgggag ggcacgaagc ccccggaaga ggtggtggtg cccacccgcg tggggcaggg 240
 ctatgtatac gaggccgccc agccggagca ggacgagtag gacatccgcg g 291

<210> 344
 <211> 291
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(291)
 <223> n = g, a, c or t

<400> 344
 cgcggggatgt cgtactcgtc ctgctccggc tgggcggcct cgntatacat agccctgccc 60
 cacgcgggtg ggcaccacca cctttgccgg gggcttcgtg cctcccagc tgcgtgtgtc 120
 catggacggg gggacctggt agatgtcatg ccccatcccg gcagaagggtg gcacctggta 180
 aatatcctgg gcagggcctc caggccctgg gggcacctgg tacaggctctg tggccgggct 240
 gggaaacggg tgatggggtg tctgcttcga gaagggtgat gtctgcttgg c 291

<210> 345
 <211> 291
 <212> DNA
 <213> Homo sapiens

<400> 345
 gccaaagcaga catccacctt ctggaagcag acaccccatc acccgtttcc cagcccggcc 60
 acagacctgt accaggtgcc ccagggggc tggaggccct gccaggata tttaccaggt 120
 gccaccttct gccgggatgg ggcattgacat ctaccaggtc ccccggtcca tggacacacg 180
 cagctgggag ggcacgaagc ccccggaaca ggtgggtggtg cccacccgcg tggggcaggg 240
 ctatgtatac gaggccgccc agccggagca ggacgagtac gacatcccgc g 291

<210> 346
 <211> 290
 <212> DNA
 <213> Homo sapiens

<400> 346
 cgcggggatgt cgtactcgtc ctgctccggc tgggcggcct cgtatacata gccctgcccc 60
 acgcgggtgg gcaccaccac ctttgccggg ggcttcgtgc cctcccagct gcgtgtgtcc 120
 atggacgggg ggacctggta gatgtcatgc cccatcccgg cagaagggtgg cacctggtaa 180
 atatcctggg cagggcctcc aggccctggg ggcacctggt acaggctctgt ggccgggctg 240
 ggaaacgggt gatggggtgt ctgcttcgag aagggtggatg tctgcttggc 290

<210> 347
 <211> 292
 <212> DNA
 <213> Homo sapiens

<400> 347
 gccaaagcaga catccacctt ctggaagcag acaccccatc acccgtttcc cagcccggcc 60
 acagacctgt accaggtgcc ccaggggacc tggaggccct gccaggata tttaccaggt 120
 gccaccttct gccgggatgg ggcattgacat ctaccaggtc ccccgatcc atggacacac 180
 gcagctggga gggcacgaag ccccggaaca aggtgggtgg gcccacccgc gtggggcagg 240
 gctatgtata cgaggccgccc cagccggagc aggacgagta cgacatcccg cg 292

<210> 348
 <211> 290
 <212> DNA
 <213> Homo sapiens

<400> 348
 cgcggggatgt cgtactcgtc ctgctccggc tgggcggcct cgtatacata gccctgcccc 60
 acgcgggtgg gcaccaccac ctttgccggg ggcttcgtgc cctcccagct gcgtgtgtcc 120

atggacggggg	ggacctggta	gatgtcatgc	cccatcccg	cagaagggtgg	cacctggtaa	180
atatacctggg	cagggccctcc	aggccctggg	ggcacctggg	acaggtctgt	ggccgggctg	240
ggaaacgggt	gatgggggtgt	ctgcttcgag	aagggtgatg	tctgcttggc		290

<210> 349
 <211> 292
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(292)
 <223> n = g, a, c or t

<400> 349						
gccaagcaga	catccacctt	ctcgaagcag	acaccccatc	accggtttcc	cagcccggcc	60
acagacctgt	accaggtgcc	cccagggnc	tggaggccct	gcccaggata	tttaccaggt	120
gccaccttct	gccgggatgg	ggcatgacat	ctaccaggtc	cccccgatcc	atggacacac	180
gcagctggga	gggcacgaag	ccccggcaa	aggtgggtgt	gcccacccgc	gtggggcagg	240
gctatgtata	cgaggccgcc	cagccggagc	aggacgagta	cgacatcccg	cg	292

<210> 350
 <211> 289
 <212> DNA
 <213> Homo sapiens

<400> 350						
gcgggatgtc	gtactcgtcc	tgctccggct	gggcggcctc	gtatacatag	ccctgcccc	60
cgcggttggg	caccaccacc	tttgccgggg	gcttcgtgcc	ctcccagctg	cgtgtgtcca	120
tggacggggg	gacctggtag	atgtcatgcc	ccatcccggc	agaagggtgg	acctggtaaa	180
tatcctgggc	agggcctcca	ggccctgggg	gcacctggta	caggtctgtg	gccgggctgg	240
gaaacgggtg	atgggggtgt	tgcttcgaga	aggtggatgt	ctgcttggc		289

<210> 351
 <211> 3208
 <212> DNA
 <213> Homo sapiens

<400> 351						
gaggcggcag	ctgcgcggcg	gcaccggggc	ggctgcggcg	cgctcggagc	cccgaggcac	60
gcggcccggg	cagctcgggtg	tgcgcccccg	cgagagccgg	gccccaggcc	cgccggacac	120
catgaaccac	ctgaacgtgc	tggccaaagc	gctctatgac	aatgtggccg	agtccccgga	180
tgagctctcc	ttccgcaagg	gtgacatcat	gacggtgctg	gagcaggaca	cgcagggcct	240
ggacggctgg	tggtctctgt	cgctgcatgg	gcgccagggc	atcgtgcctg	ggaaccgcct	300
caagatcttg	gtgggcatgt	atgataagaa	gccagcaggg	cctggctccg	gcctcccgc	360
caccccgggc	cagcctcagc	ctggcctcca	tgccccagcg	cctccggcct	cccagtacac	420
gcccattgtc	cccaacacct	accagcccca	gccagacagc	gtctacctgg	tgccactcc	480
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ggccacagac	ctgtaccagg	tgcccccagg	gcctggaggc	cctgcccagg	atatttacca	660
ggtgccacct	tctgcccggg	tggggcatga	catctaccag	gtccccccgt	ccatggacac	720
acgcagctgg	gagggcacga	agcccccgcc	aaagggtggtg	gtgcccaccc	gcgtggggca	780
gggctatgta	tacgaggccg	cccagccgga	gcaggacgag	tacgacatcc	cgcgacacct	840
gctggccccg	gggccacagg	acatctatga	tgtgcccccg	gttcgggggc	tgcttcccag	900
ccagtatggc	caggaggtgt	atgacacacc	ccccatggct	gtcaagggtc	ccaatggccg	960
agaccggttg	ctggaggtgt	atgacgtgcc	ccccagtgtg	gagaaggggc	tgccaccgtc	1020
caaccaccac	gcagtctacg	acgttcctcc	atcggtgagc	aaggatgtgc	ccgatggccc	1080
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cccggccccg	accccaactgg	tactggctgc	gccccctcca	gactccccgc	cggccgagga	1200
cgtgtatgac	gtgcgcgccc	cggctcctga	cctctacgac	gtgccccctg	gcttgcgggc	1260
gcctggcccc	ggcaccctgt	acgatgtgcc	ccgtgaacgg	gtgcttcctc	ctgaggtggc	1320

tgatggtggc	gtggtcgaca	gtggtgtgta	tgcggtgcct	ccccagctg	aacgtgaagc	1380
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gtttgcccgc	agcgcggtgg	gcaatgctgc	ccacacatct	gaccgtgccc	tgcattgcaa	1740
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ggcctgctcg	cgggctgtgc	ccgaggacgc	caagcagctg	gcctccttcc	tgcacggcaa	1920
tgctcactg	ctcttcagac	ggaccaaggc	cactgccccg	gggcctgagg	gggggtggcac	1980
cctgcacccc	aacccactg	acaagaccag	cagcatccag	tcacgacccc	tgccctcacc	2040
ccctaagttc	acctcccagg	actcaccaga	tgggcagtag	gagaacagcg	aggggggctg	2100
gatggaggac	tatgactacg	tccacctaca	ggggaaggag	gagtttgaga	agaccagaa	2160
ggagctgctg	gaaaagggca	gcatacgcg	gcagggcaag	agccagctgg	agttgcagca	2220
gctgaagcag	tttgaacgac	tggaaacagg	ggtgtcacgg	cccatagacc	acgacctggc	2280
caactggacg	ccagcccaac	ccctggcccc	ggggcgaaca	ggcggcctgg	ggccctcgga	2340
ccggcagctg	ctgctcttct	acctggagca	gtgtgaggcc	aacctgacca	cactgaccaa	2400
cgccgtggac	gccttcttta	ccgccgtggc	caccaaccag	ccgcccaga	tctttgtggc	2460
gcacagcaag	ttcgtcatcc	tcagcgccca	caagctggtg	ttcatcgggg	acacactgtc	2520
acggcaggcc	aaggctgctg	acgtgcgcag	ccaggtgacc	cactacagca	acctgctgtg	2580
cgacctcctg	cgcgcatcgc	tggccaccac	caaggccgct	gccttgcaat	acccatcgcc	2640
ttccgcggcc	caggacatgg	tggagagggg	caaggagctg	ggccacagca	cccagcagtt	2700
ccgccgcgtc	ctaggccagc	tggcagccgc	ctgagggtgg	tgacccagag	agggaggcag	2760
gggaggggtg	cggcggtccc	agctccctgg	ctcccattgc	aagagtcgct	gtgccacagg	2820
cttagggaca	ggaccccagc	tctgcgtcgc	tcctggtgcc	ctggatgccc	aggaatctgt	2880
atatatttat	ggccgggcag	ggtgtggggc	catgcctcct	caggagccga	agcccagggg	2940
ccgcagtggc	cttccccagc	atgcaccacg	ggcccggggt	gggtcaccag	acggggctgg	3000
agtgtgaggg	tcctgcagcc	tgcaggacct	cgtgccaccc	cgagggctga	gcctggtccc	3060
acgaggggtg	cgtgtcccct	gacagggcca	gtgcagtttg	gtgtgtcctc	cgccttacca	3120
ggagaagaac	ctgaagaact	atttttcggt	attggttttc	caatcatttg	actaagagtc	3180
tccatttaaa	taaagttttt	aaaaggaa				3208

<210> 352
 <211> 870
 <212> PRT
 <213> Homo sapiens

<400> 352

Met	Asn	His	Leu	Asn	Val	Leu	Ala	Lys	Ala	Leu	Tyr	Asp	Asn	Val	Ala
1				5					10					15	
Glu	Ser	Pro	Asp	Glu	Leu	Ser	Phe	Arg	Lys	Gly	Asp	Ile	Met	Thr	Val
			20					25					30		
Leu	Glu	Gln	Asp	Thr	Gln	Gly	Leu	Asp	Gly	Trp	Trp	Leu	Cys	Ser	Leu
		35					40					45			
His	Gly	Arg	Gln	Gly	Ile	Val	Pro	Gly	Asn	Arg	Leu	Lys	Ile	Leu	Val
	50					55					60				
Gly	Met	Tyr	Asp	Lys	Lys	Pro	Ala	Gly	Pro	Gly	Ser	Gly	Pro	Pro	Ala
65					70					75				80	
Thr	Pro	Ala	Gln	Pro	Gln	Pro	Gly	Leu	His	Ala	Pro	Ala	Pro	Pro	Ala
			85						90					95	
Ser	Gln	Tyr	Thr	Pro	Met	Leu	Pro	Asn	Thr	Tyr	Gln	Pro	Gln	Pro	Asp
			100					105					110		
Ser	Val	Tyr	Leu	Val	Pro	Thr	Pro	Ser	Lys	Ala	Gln	Gln	Gly	Leu	Tyr
		115					120					125			
Gln	Val	Pro	Gly	Pro	Ser	Pro	Gln	Phe	Gln	Ser	Pro	Pro	Ala	Lys	Gln
	130					135					140				
Thr	Ser	Thr	Phe	Ser	Lys	Gln	Thr	Pro	His	His	Pro	Phe	Pro	Ser	Pro
145					150					155				160	
Ala	Thr	Asp	Leu	Tyr	Gln	Val	Pro	Pro	Gly	Pro	Gly	Gly	Pro	Ala	Gln
			165					170						175	

Asp	Ile	Tyr	Gln	Val	Pro	Pro	Ser	Ala	Gly	Met	Gly	His	Asp	Ile	Tyr		
			180					185					190				
Gln	Val	Pro	Pro	Ser	Met	Asp	Thr	Arg	Ser	Trp	Glu	Gly	Thr	Lys	Pro		
		195					200						205				
Pro	Ala	Lys	Val	Val	Val	Pro	Thr	Arg	Val	Gly	Gln	Gly	Tyr	Val	Tyr		
	210					215					220						
Glu	Ala	Ala	Gln	Pro	Glu	Gln	Asp	Glu	Tyr	Asp	Ile	Pro	Arg	His	Leu		
225					230					235					240		
Leu	Ala	Pro	Gly	Pro	Gln	Asp	Ile	Tyr	Asp	Val	Pro	Pro	Val	Arg	Gly		
			245						250					255			
Leu	Leu	Pro	Ser	Gln	Tyr	Gly	Gln	Glu	Val	Tyr	Asp	Thr	Pro	Pro	Met		
			260					265					270				
Ala	Val	Lys	Gly	Pro	Asn	Gly	Arg	Asp	Pro	Leu	Leu	Glu	Val	Tyr	Asp		
		275					280						285				
Val	Pro	Pro	Ser	Val	Glu	Lys	Gly	Leu	Pro	Pro	Ser	Asn	His	His	Ala		
	290					295					300						
Val	Tyr	Asp	Val	Pro	Pro	Ser	Val	Ser	Lys	Asp	Val	Pro	Asp	Gly	Pro		
305					310					315					320		
Leu	Leu	Arg	Glu	Glu	Thr	Tyr	Asp	Val	Pro	Pro	Ala	Phe	Ala	Lys	Ala		
			325					330						335			
Lys	Pro	Phe	Asp	Pro	Ala	Arg	Thr	Pro	Leu	Val	Leu	Ala	Ala	Pro	Pro		
			340					345					350				
Pro	Asp	Ser	Pro	Pro	Ala	Glu	Asp	Val	Tyr	Asp	Val	Pro	Pro	Pro	Ala		
		355					360						365				
Pro	Asp	Leu	Tyr	Asp	Val	Pro	Pro	Gly	Leu	Arg	Arg	Pro	Gly	Pro	Gly		
	370				375						380						
Thr	Leu	Tyr	Asp	Val	Pro	Arg	Glu	Arg	Val	Leu	Pro	Pro	Glu	Val	Ala		
385					390					395					400		
Asp	Gly	Gly	Val	Val	Asp	Ser	Gly	Val	Tyr	Ala	Val	Pro	Pro	Pro	Ala		
			405					410						415			
Glu	Arg	Glu	Ala	Pro	Ala	Glu	Gly	Lys	Arg	Leu	Ser	Ala	Ser	Ser	Thr		
			420					425					430				
Gly	Ser	Thr	Arg	Ser	Ser	Gln	Ser	Ala	Ser	Ser	Leu	Glu	Val	Ala	Gly		
		435					440					445					
Pro	Gly	Arg	Glu	Pro	Leu	Glu	Leu	Glu	Val	Ala	Val	Glu	Ala	Leu	Ala		
	450					455						460					
Arg	Leu	Gln	Gln	Gly	Val	Ser	Ala	Thr	Val	Ala	His	Leu	Leu	Asp	Leu		
465					470					475					480		
Ala	Gly	Ser	Ala	Gly	Ala	Thr	Gly	Ser	Trp	Arg	Ser	Pro	Ser	Glu	Pro		
			485					490						495			
Gln	Glu	Pro	Leu	Val	Gln	Asp	Leu	Gln	Ala	Ala	Val	Ala	Ala	Val	Gln		
			500					505					510				
Ser	Ala	Val	His	Glu	Leu	Leu	Glu	Phe	Ala	Arg	Ser	Ala	Val	Gly	Asn		
		515					520					525					
Ala	Ala	His	Thr	Ser	Asp	Arg	Ala	Leu	His	Ala	Lys	Leu	Ser	Arg	Gln		
		530				535					540						
Leu	Gln	Lys	Met	Glu	Asp	Val	His	Gln	Thr	Leu	Val	Ala	His	Gly	Gln		
545					550					555					560		
Ala	Leu	Asp	Ala	Gly	Arg	Gly	Gly	Ser	Gly	Ala	Thr	Leu	Glu	Asp	Leu		
			565					570						575			
Asp	Arg	Leu	Val	Ala	Cys	Ser	Arg	Ala	Val	Pro	Glu	Asp	Ala	Lys	Gln		
			580					585					590				
Leu	Ala	Ser	Phe	Leu	His	Gly	Asn	Ala	Ser	Leu	Leu	Phe	Arg	Arg	Thr		
		595					600					605					
Lys	Ala	Thr	Ala	Pro	Gly	Pro	Glu	Gly	Gly	Gly	Thr	Leu	His	Pro	Asn		
	610					615					620						
Pro	Thr	Asp	Lys	Thr	Ser	Ser	Ile	Gln	Ser	Arg	Pro	Leu	Pro	Ser	Pro		
625					630					635					640		
Pro	Lys	Phe	Thr	Ser	Gln	Asp	Ser	Pro	Asp	Gly	Gln	Tyr	Glu	Asn	Ser		
			645						650					655			

Glu Gly Gly Trp Met Glu Asp Tyr Asp Tyr Val His Leu Gln Gly Lys
 660 665 670
 Glu Glu Phe Glu Lys Thr Gln Lys Glu Leu Leu Glu Lys Gly Ser Ile
 675 680 685
 Thr Arg Gln Gly Lys Ser Gln Leu Glu Leu Gln Gln Leu Lys Gln Phe
 690 695 700
 Glu Arg Leu Glu Gln Glu Val Ser Arg Pro Ile Asp His Asp Leu Ala
 705 710 715 720
 Asn Trp Thr Pro Ala Gln Pro Leu Ala Pro Gly Arg Thr Gly Gly Leu
 725 730 735
 Gly Pro Ser Asp Arg Gln Leu Leu Leu Phe Tyr Leu Glu Gln Cys Glu
 740 745 750
 Ala Asn Leu Thr Thr Leu Thr Asn Ala Val Asp Ala Phe Phe Thr Ala
 755 760 765
 Val Ala Thr Asn Gln Pro Pro Lys Ile Phe Val Ala His Ser Lys Phe
 770 775 780
 Val Ile Leu Ser Ala His Lys Leu Val Phe Ile Gly Asp Thr Leu Ser
 785 790 795 800
 Arg Gln Ala Lys Ala Ala Asp Val Arg Ser Gln Val Thr His Tyr Ser
 805 810 815
 Asn Leu Leu Cys Asp Leu Leu Arg Gly Ile Val Ala Thr Thr Lys Ala
 820 825 830
 Ala Ala Leu Gln Tyr Pro Ser Pro Ser Ala Ala Gln Asp Met Val Glu
 835 840 845
 Arg Val Lys Glu Leu Gly His Ser Thr Gln Gln Phe Arg Arg Val Leu
 850 855 860
 Gly Gln Leu Ala Ala Ala
 865 870

<210> 353

<211> 1050

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(1050)

<223> n = g, a, c or t

<400> 353

accgctcctc	tcccgagggc	acacaaccaa	ccaaactggt	gctctgaaac	agcgccagtg	60
tccagttctc	tgaggagcac	tgggtccatg	aggtcttggn	cgggcggtgc	agctgcgctg	120
gagctgctgg	agtgtgcgtg	gaaganactg	tngagtggcg	tggntcattc	aagaacnggt	180
gttccggang	aaaaccagaa	caaggtgggt	tagatangga	ataaaaagggg	ggccggatcg	240
aataaatctt	gaaggggtctt	gaantnaatc	gtnccaaact	ttggaacact	tggtcccggg	300
ttttcaacag	tggtgggcga	acatttttca	tctagcagtg	ggacccggcg	gttaaataat	360
ttctataaat	atactgggcc	ngtaataaat	agattggaag	ngttcacgag	taatttttaa	420
cacaacattt	ccaaccattt	gtggnggccg	agcgaccgag	agtaatannt	aagaaaaacg	480
ggttaccggt	ggaaaccccc	tttgggtgggt	ggaanagtaa	aaacaagacc	catttatgag	540
gacgcgggtn	tatntaacca	gccccaaaga	anacaggttt	aaaaaagttt	catggcgacc	600
cagctttntt	ggtcgaagtt	ntgaagacaa	agaatttttt	gnggaccgng	cattaattta	660
ttaattgagg	acggaaaaaag	aggattttgtg	tncggacaca	ggcgttaaaa	aattaaatta	720
ccgcgnataa	aagatgaaaa	tagttggtgc	gccgaggncg	aaaacgctcg	gaaagtattc	780
tcnggcagcg	ccngtttttt	ataccgcgaa	aaaacgaaaag	agtagataat	tgtgctagcc	840
ggtcgtcaan	tagatgacga	actaaaatat	nataantatg	gggtttaaca	cgtgtgggtg	900
agtaagagag	gaatttataa	aacagggtgt	ggttttataca	taaaccatta	tatttttata	960
atagcgaatg	anaggtaaaa	gagacccggc	nggagataat	atctagtggg	taccagattg	1020
gtgaataata	gggtactgggg	taaattttgtt				1050

<210> 354
 <211> 698
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(698)
 <223> n = g, a, c or t

```

<400> 354
accgctcctc tcccagagggc acacacccac ccaaactggg gctctgaacc agcgccagggt      60
ccagttctct gaggagcact ggggtccatga gtctggncgg ccggtgcagc gcgcggagct      120
gctgcagggtg ctgcagagcc tggagtggcg tgctcatcca gaactgtgtt ctgcgagaaa      180
ccagcacagt ggttagatat gataaagcgg gcgctctgac taaatctgag gtcttgatac      240
tactgactg tcgtaagggn ggaattctgc ggccgcgtaa attcaaattc tgccctatan      300
gtgagtccgt attacaattc acttggggcg tcgttttaca acagtctgtg actgggaaaa      360
aacctggcgt taccacacaca ttaatctgcc ttgcagcgac attccccctt ctgccagact      420
ggncgtaata gcgaagaggg gccgcgacac gatctgccct tcccaacagt tgcgcagagc      480
tatacggtac aggggganga tgtaaagcg gntgttacia acgtatntaa aagaggtaaa      540
gaaaagaacc gcagggtgtg taaaatncac ggaggcnctt anggtgtatt ggtgcgcggc      600
gatttgtttn cccaacggca agnttgggaa tacaatttaa attattgaaa caaagngtga      660
ccncgatgtg tgggtgtggaa naggaatat aggggtgt      698
  
```

<210> 355
 <211> 168
 <212> DNA
 <213> Homo sapiens

```

<400> 355
accgcctcct ctcccagagg cacacaccca cccaacctgg tgctctgaac cagcgccagg      60
tccagttctc tgaggagcac tgggtccatg agtctggcgg gccggtgcag cgcgcgagc      120
tgctgcagggt gctgcagagc ctggaggccg tgctcatcca gaccgtgt      168
  
```

<210> 356
 <211> 406
 <212> DNA
 <213> Homo sapiens

```

<400> 356
ctggtgggga tggggaccgc ctgcccaggg gtgagctgcc ttttgctcca cagccgacac      60
taaagacaat tcccaatcct gagtgggtgg cagagactcc tgcgatgccc gtctcaggta      120
gctgtggggc accagccac aagccgaggt tggctctcct aggagtgaga actgcccaag      180
ggctgcagaa acaggccacc cagctctatc tgggggctcc atcgggtgggt agggggacag      240
tgggggcagt tctgggcccc cccagccact gttcctgacc ccaagtcctg gtgactttct      300
gaggtgcccc ctcccatcca acctgccttg ctggccagcc ttgtggcttt gccagctgt      360
gtgtgtgagg gtggcatgcc cacctccagt ccagcccagg gcggta      406
  
```

<210> 357
 <211> 620
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(620)
 <223> n = g, a, c or t

```

<400> 357
ctggtgggga tggggaccgc ctgcccaggg gtgagctgcc ttttgctcca cagcggcact      60
aaagacaatt cccaatcctg agtgggtggc agagactcct gcgatgcccg tctcangtag      120
  
```

ctgtggggca	ccagcccaca	agccgaggtt	ggntctccta	ggagtgagaa	ctgcccgaagg	180
gctgcagaaa	caggccaccc	agctctatct	gggggctcca	atcgggtgggt	agggggacag	240
tgggggcagt	tctggggccca	cccagcactg	ttcctgaacc	caagtccctgg	tgactttctg	300
aggtgcccac	tcccatacaa	actggcttgc	tggncagcct	tgtggctttg	nccagctgtg	360
tgtgtgaggg	tggcatgccc	anctccagtc	cagcccaggg	cggtagcagc	aaagcgtggc	420
atcgactcgg	nntttcttac	aaaaaattca	taaataatat	tcactaataa	tatactcgga	480
acatttgctg	gggcttgggg	gcgttgcccc	cggggaagtc	cagtgttggg	gggcaaggcc	540
aggttggccc	tanacgaagg	ggggccaggg	gccgttgtgt	ttgggccccg	ggccctgggg	600
cgcnggtgct	tgacacaggg					620

<210> 358
 <211> 489
 <212> DNA
 <213> Homo sapiens

<400> 358						
ctggtgggga	tggggaccgc	ctgcccaggg	gtgagctgcc	ttttgctcca	cagccggcac	60
taaagacaat	tcccaatcct	gagtgggtgg	cagagactcc	tgcatgccc	gtctcaggta	120
gctgtggggc	accagcccac	aagccgaggt	tggctctcct	aggagtgaga	actgcccag	180
ggctgcagaa	acaggccacc	cagctctatc	tgggggctcc	atcgggtgggt	agggggacag	240
tgggggcagt	tctggggccca	cccagccact	gttcctgacc	ccaagtccctg	gtgactttct	300
gaggtgccc	ctcccataca	acctgccttg	ctggccagcc	ttgtggcttt	gcccagctgt	360
gtgtgtgagg	gtggcatgcc	cacctccagt	ccagcccagg	gcggtagcag	caaagcgtgg	420
catcgctcgc	gtttcttaca	aaaattcata	ataatattaa	taataatata	ctcgacattg	480
tcgggctgg						489

<210> 359
 <211> 448
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(448)
 <223> n = g, a, c or t

<400> 359						
ctggtgggga	tggggaccgc	ctgcccgggg	gtgagctgcc	ttttgctcca	cagccggcac	60
taaagacaat	tcccaatcct	gagtgggtgg	cagagactcc	tgcatgccc	gtctcaggta	120
gctgtggggc	accagcccac	aagccgaggt	tggctctcct	aggagtgaga	actgcccag	180
ggctgcagaa	acaggccacc	cagctctatc	tgggggctcc	atcgggtgggt	agggggacag	240
tgggggcagt	tctggggccca	cccagccact	gtncctgacc	ccaagtccctg	gtgactttct	300
gaggtgccc	ctccacatcc	aacctgcctt	gctggncagc	cttgntggca	taatgcccag	360
nctgatagat	gcgtgagggg	ggacatgccc	acctaccagt	accagaccca	gggcggatag	420
gcagcaaagn	acgtggcatc	gcctcggg				448

<210> 360
 <211> 317
 <212> DNA
 <213> Homo sapiens

<400> 360						
ctggtcagcg	gccggtcccc	aggtcccaac	gtggcagtc	acgccaaagg	cagcgtctac	60
atcggcggag	cccctgacgt	ggccacgctg	accgggggca	gattctcctc	gggcatcaca	120
ggctgtgtca	agaacctggg	gctgcactcg	gcccgaaccg	gcgccccgcc	cccacagccc	180
ctggacctgc	agaccggccc	aggccggggc	caacacacgc	ccctgcccct	cgtaggcacc	240
tgctgcccc	acacggactc	ccggggccacg	ccccagcccc	acaatgtcga	gtatattatt	300
attaatatta	ttatgaa					317

<210> 361
 <211> 177
 <212> DNA
 <213> Homo sapiens

<400> 361	
ctgggtcagcg gccggtcccc aggtcccaac gtggcagtcac acgccaaggg cagcgtctac	60
atcggcggag cccctgacgt ggccacgctg accgggggca gattctcctc gggcatcaca	120
ggctgtgtca agaacctggt gctgcactcg gcccgaccgg gcgccccgcc cccacaa	177

<210> 362
 <211> 396
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(396)
 <223> n = g, a, c or t

<400> 362	
ttgggtcagcg gccggtcccc aggtcccaac gtggcagtcac acgccaaggg cagcgtctac	60
atcggcggag cccctgacgt ggccacgctg accgggggca gattctcctc gggcatcaca	120
ggctgtgtca agaacctggt gctgcactcg gcccgaccgg gcgccccgcc cccacagccc	180
ctggacctgc agcaccgcgc ccaggccggg gccaacacac gcccctgccc ctctagggca	240
cctgcctgccc ccacacggac tcccggggcca cgccccagcc cgacaatgtc gagtatatta	300
ttattaatat tattatgaat ttttngtaag aaaccgaggc gatgccacgc ttangctgct	360
accgccctgg gctggactgg aggtgggcat gccacc	396

<210> 363
 <211> 704
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(704)
 <223> n = g, a, c or t

<400> 363	
ctgggtcagcg gccggtcccc aggtcccaac gtggcagtcac acgccaaggg cagcgtctac	60
atcggcggag cccctgacgt ggccacgctg accgggggca gattctcctc gggcatcaca	120
ggctgtgtca agaacctggt gctgcactcg gcccgaccgg gcgccccgcc ccacagcccc	180
tggacctgca gcaccgcgc caggccgggg ccaacacacg cccctgcccc tcgtaggcac	240
ctgcctgccc cacacggact cccggggccac gccccagccg acaatgtcga gtatattatt	300
attaactatt attatgaact ttttgtaaga aaccgaggcg atgccacgct ttgctgctac	360
cggcctgggg ctggactgga ggtgggcatg ccaacacccat cacggcacaa cagctggcaa	420
aagccaacaa agggccttgg gccaggcaag ggcacagggt gggactggga gtggggcacc	480
ctcangaaag gtcacccagg gaactatggg ggggtncag aggaaaccac aggtagggga	540
cctgggggtt tngggggccc cccaggaaaa cttggggcgcc ccacaaanat ngntaccacc	600
accataaaca cacaagccca gaantgtgaa aacccccaac ccagagaaan tagcagagcc	660
atcgaggaaa gcaccccaag atacacagca nnacccccatg agaa	704

<210> 364
 <211> 495
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(495)
 <223> n = g, a, c or t

<400> 364
 aagctgcctt ttgctccaca gccggcacta aagacaattc ccaatcctga gtgggtggca 60
 gagactccct ttggggcgat gcccgctctc caggtaaggc tgtggtgggc gggccaacac 120
 accaaaaagg ggcccccccc aaaaatagcc ccatacaaac aaaacacgng gggcccatat 180
 cccacgggaa aagggggggt tatgggtggg ccattttccc ccagtttcca cccgtttaac 240
 aggcgnggca acacngcttt ttgggcgtgn ctggaacaac aacccttttg ggtctcctcc 300
 nccccaaaag taggggtgggc tgggcggccc cttttatgtg tggcccaana cnggagaaca 360
 caatactaaa taatcccaaa ctggtgtggg gtgtcccgcc caaatanac ccaccccaan 420
 tagatgcccc ttttaccctg ttttataaaa aatttttttt tccccctata tcttggcggg 480
 ggcgagggga tatgt 495

<210> 365
 <211> 13793
 <212> DNA
 <213> Homo sapiens

<400> 365
 gcccgagcgc agcagcgcgc agagcggcgc gggccgggccc atgggggtggc gggcgccggg 60
 cgcgctgctg ctggcgctgc tgctgcacgg gcggtgctgc gcggtgaccc atgggctgag 120
 ggcatatcat ggcttgcttc tgccctgagga catagagacc gtcacagcaa gccaaatgcg 180
 ctggacacat tcgtaccttt ctgatgatga ggacatgctg gctgacagca tctcaggaga 240
 cgacctgggc agtggggacc tgggcagcgg ggacttccag atgggtttatt tccgagccct 300
 ggtgaatttc actcgctcca tcgagtacag cctcagctg gaggatgcag gctccagaga 360
 gtttcgagag gtgtccgagg ctgtggtaga cacgctggag tcggagtact tgaaaattcc 420
 cggagaccag gttgtcagtg tgggtgtcat caaggagctg gatggctggg tttttgtgga 480
 gctggtatgt ggctcggaag ggaatgcgga tggggctcag attcaggaga tgctgctcag 540
 ggtcatctcc agcggctctg tggcctccta cgtcacctct ccccgaggat tccagttccg 600
 acgcctgggc acagtgcctc agttcccaag agcctgcacg gaggccagat ttgcctgcca 660
 cagctacaat gagtgtgtgg ccctggagta tcgctgtgac cggcgggccc actgcaggga 720
 catgtctgat gagtcaatt gtgaggagcc agtcctgggt atcagcccca cattctctct 780
 cctcgtggag acgacatctt taccgccccg gccagagaca accatcatgc gacagccacc 840
 agtcacccac gtcctcagc cctgcttcc cggttccgtc agggccctgc cctgtgggccc 900
 ccaggaggcc gcatgccgca atgggcaact catccccaga gactacctct gcgacggaga 960
 ggaggactgc gaggacggca gcgatgagct agactgtggc cccccgccac cctgtgagcc 1020
 caacgagtct ccctgcggga atggacattg tgccctcaag ctgtggcgct gcgatggtga 1080
 ctttgactgt gaggaccgaa ctgatgaagc caactgcccc accaagcgct ctgaggaagt 1140
 gtgcgggccc acacagttcc gatgcgtctc taccaacatg tgcatcccag ccagcttcca 1200
 ctgtgacgag gagagcgact gtccctgacc gagcgacgag tttggctgca tgcccccca 1260
 ggtggtgaca cctccccggg agtccatcca ggcttcccgg ggccagacag tgaccttcac 1320
 ctgcgtggcc attggcgctc ccgccccctt tctcatcaat tggaggctca actggggcca 1380
 catccccctc cagcccaggg tgacagtgc cagcgagggt ggccgtggca cactgatcat 1440
 ccgtgatgtg aaggagtcag accagggtgc ctacacctgt gaggccatga acgccccggg 1500
 catggtgttt ggcatctctg acggtgtcct tgagctcgtc ccacaacgag caggccccctg 1560
 ccctgacggc cacttctacc tggagcacag cgccgcctgc ctgccctgct tctgcttttg 1620
 catcaccagc gtgtgccaga gcacccgccc ctccggggac cagatcaggc tgcgctttga 1680
 ccaaccgat gacttcaagg gtgtgaatgt gacaatgctc gcgcagcccg gcacgccacc 1740
 cctctctccc acgcagctgc agatcgaccc atccctgcac gagtccagc tagtcgacct 1800
 gtcccgcgcg ttcctcgctc acgactcctt ctgggctctg cctgaacagt tccgtggcaa 1860
 caagggtggc tcctatggcg gctccctgcg ttacaacgtg cgctacgagt tggcccggtg 1920
 catgctggag ccagtgcagc ggccggagct ggtcctcgct ggtgcgggt accgcctcct 1980
 ctcccagggc cacacacca cccaacctgg tgctctgaac cagcgccagg tccagttctc 2040
 tgaggagcac tgggtccatg agtctggccg gccgggtgcag cgcgcggagc tgctgcaggt 2100
 gctgcagagc ctggaggccg tgctcatcca gaccgtgtac aacaccaaga tggctagcgt 2160
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145 150 155 160
Ile Gln Glu Met Leu Leu Arg Val Ile Ser Ser Gly Ser Val Ala Ser
165 170 175
Tyr Val Thr Ser Pro Gln Gly Phe Gln Phe Arg Arg Leu Gly Thr Val
180 185 190
Pro Gln Phe Pro Arg Ala Cys Thr Glu Ala Glu Phe Ala Cys His Ser
195 200 205
Tyr Asn Glu Cys Val Ala Leu Glu Tyr Arg Cys Asp Arg Arg Pro Asp
210 215 220
Cys Arg Asp Met Ser Asp Glu Leu Asn Cys Glu Glu Pro Val Leu Gly
225 230 235 240
Ile Ser Pro Thr Phe Ser Leu Leu Val Glu Thr Thr Ser Leu Pro Pro
245 250 255
Arg Pro Glu Thr Thr Ile Met Arg Gln Pro Pro Val Thr His Ala Pro
260 265 270
Gln Pro Leu Leu Pro Gly Ser Val Arg Pro Leu Pro Cys Gly Pro Gln
275 280 285
Glu Ala Ala Cys Arg Asn Gly His Cys Ile Pro Arg Asp Tyr Leu Cys
290 295 300
Asp Gly Gln Glu Asp Cys Glu Asp Gly Ser Asp Glu Leu Asp Cys Gly
305 310 315 320
Pro Pro Pro Pro Cys Glu Pro Asn Glu Phe Pro Cys Gly Asn Gly His
325 330 335
Cys Ala Leu Lys Leu Trp Arg Cys Asp Gly Asp Phe Asp Cys Glu Asp
340 345 350
Arg Thr Asp Glu Ala Asn Cys Pro Thr Lys Arg Pro Glu Glu Val Cys
355 360 365

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Gly	Pro	Thr	Gln	Phe	Arg	Cys	Val	Ser	Thr	Asn	Met	Cys	Ile	Pro	Ala
370						375					380				
Ser	Phe	His	Cys	Asp	Glu	Glu	Ser	Asp	Cys	Pro	Asp	Arg	Ser	Asp	Glu
385					390					395					400
Phe	Gly	Cys	Met	Pro	Pro	Gln	Val	Val	Thr	Pro	Pro	Arg	Glu	Ser	Ile
				405					410					415	
Gln	Ala	Ser	Arg	Gly	Gln	Thr	Val	Thr	Phe	Thr	Cys	Val	Ala	Ile	Gly
			420					425					430		
Val	Pro	Ala	Pro	Phe	Leu	Ile	Asn	Trp	Arg	Leu	Asn	Trp	Gly	His	Ile
		435					440					445			
Pro	Ser	Gln	Pro	Arg	Val	Thr	Val	Thr	Ser	Glu	Gly	Gly	Arg	Gly	Thr
	450					455					460				
Leu	Ile	Ile	Arg	Asp	Val	Lys	Glu	Ser	Asp	Gln	Gly	Ala	Tyr	Thr	Cys
465					470					475					480
Glu	Ala	Met	Asn	Ala	Arg	Gly	Met	Val	Phe	Gly	Ile	Pro	Asp	Gly	Val
			485						490					495	
Leu	Glu	Leu	Val	Pro	Gln	Arg	Ala	Gly	Pro	Cys	Pro	Asp	Gly	His	Phe
			500					505					510		
Tyr	Leu	Glu	His	Ser	Ala	Ala	Cys	Leu	Pro	Cys	Phe	Cys	Phe	Gly	Ile
	515						520					525			
Thr	Ser	Val	Cys	Gln	Ser	Thr	Arg	Arg	Phe	Arg	Asp	Gln	Ile	Arg	Leu
	530					535					540				
Arg	Phe	Asp	Gln	Pro	Asp	Asp	Phe	Lys	Gly	Val	Asn	Val	Thr	Met	Pro
545					550					555					560
Ala	Gln	Pro	Gly	Thr	Pro	Pro	Leu	Ser	Ser	Thr	Gln	Leu	Gln	Ile	Asp
			565						570					575	
Pro	Ser	Leu	His	Glu	Phe	Gln	Leu	Val	Asp	Leu	Ser	Arg	Arg	Phe	Leu
			580					585					590		
Val	His	Asp	Ser	Phe	Trp	Ala	Leu	Pro	Glu	Gln	Phe	Leu	Gly	Asn	Lys
	595						600					605			
Val	Asp	Ser	Tyr	Gly	Gly	Ser	Leu	Arg	Tyr	Asn	Val	Arg	Tyr	Glu	Leu
	610					615					620				
Ala	Arg	Gly	Met	Leu	Glu	Pro	Val	Gln	Arg	Pro	Asp	Val	Val	Leu	Val
625					630					635					640
Gly	Ala	Gly	Tyr	Arg	Leu	Leu	Ser	Arg	Gly	His	Thr	Pro	Thr	Gln	Pro
			645						650					655	
Gly	Ala	Leu	Asn	Gln	Arg	Gln	Val	Gln	Phe	Ser	Glu	Glu	His	Trp	Val
			660					665					670		
His	Glu	Ser	Gly	Arg	Pro	Val	Gln	Arg	Ala	Glu	Leu	Leu	Gln	Val	Leu
	675						680					685			
Gln	Ser	Leu	Glu	Ala	Val	Leu	Ile	Gln	Thr	Val	Tyr	Asn	Thr	Lys	Met
	690					695					700				
Ala	Ser	Val	Gly	Leu	Ser	Asp	Ile	Ala	Met	Asp	Thr	Thr	Val	Thr	His
705					710					715					720
Ala	Thr	Ser	His	Gly	Arg	Ala	His	Ser	Val	Glu	Glu	Cys	Arg	Cys	Pro
			725						730					735	
Ile	Gly	Tyr	Ser	Gly	Leu	Ser	Cys	Glu	Ser	Cys	Asp	Ala	His	Phe	Thr
			740					745					750		
Arg	Val	Pro	Gly	Gly	Pro	Tyr	Leu	Gly	Thr	Cys	Ser	Gly	Cys	Ser	Cys
		755					760					765			
Asn	Gly	His	Ala	Ser	Ser	Cys	Asp	Pro	Val	Tyr	Gly	His	Cys	Leu	Asn
	770					775					780				
Cys	Gln	His	Asn	Thr	Glu	Gly	Pro	Gln	Cys	Lys	Lys	Cys	Lys	Ala	Gly
785					790					795					800
Phe	Phe	Gly	Asp	Ala	Met	Lys	Ala	Thr	Ala	Thr	Ser	Cys	Arg	Pro	Cys
			805						810					815	
Pro	Cys	Pro	Tyr	Ile	Asp	Ala	Ser	Arg	Arg	Phe	Ser	Asp	Thr	Cys	Phe
			820					825					830		
Leu	Asp	Thr	Asp	Gly	Gln	Ala	Thr	Cys	Asp	Ala	Cys	Ala	Pro	Gly	Tyr
		835					840					845			

Thr	Gly	Arg	Arg	Cys	Glu	Ser	Cys	Ala	Pro	Gly	Tyr	Glu	Gly	Asn	Pro		
850						855					860						
Ile	Gln	Pro	Gly	Gly	Lys	Cys	Arg	Pro	Val	Asn	Gln	Glu	Ile	Val	Arg		
865					870					875					880		
Cys	Asp	Glu	Arg	Gly	Ser	Met	Gly	Thr	Ser	Gly	Glu	Ala	Cys	Arg	Cys		
				885					890						895		
Lys	Asn	Asn	Val	Gly	Arg	Leu	Cys	Asn	Glu	Cys	Ala	Asp	Arg	Ser			
			900				905						910				
Phe	His	Leu	Ser	Thr	Arg	Asn	Pro	Asp	Gly	Cys	Leu	Lys	Cys	Phe	Cys		
		915				920						925					
Met	Gly	Val	Ser	Arg	His	Cys	Thr	Ser	Ser	Ser	Trp	Ser	Arg	Ala	Gln		
	930					935					940						
Leu	His	Gly	Ala	Ser	Glu	Glu	Pro	Gly	His	Phe	Ser	Leu	Thr	Asn	Ala		
945					950					955					960		
Ala	Ser	Thr	His	Thr	Asn	Glu	Gly	Ile	Phe	Ser	Pro	Thr	Pro	Gly			
				965				970						975			
Glu	Leu	Gly	Phe	Ser	Ser	Phe	His	Arg	Leu	Leu	Ser	Gly	Pro	Tyr	Phe		
			980					985					990				
Trp	Ser	Leu	Pro	Ser	Arg	Phe	Leu	Gly	Asp	Lys	Val	Thr	Ser	Tyr	Gly		
		995				1000						1005					
Gly	Glu	Leu	Arg	Phe	Thr	Val	Thr	Gln	Arg	Ser	Gln	Pro	Gly	Ser	Thr		
	1010					1015					1020						
Pro	Leu	His	Gly	Gln	Pro	Leu	Val	Val	Leu	Gln	Gly	Asn	Asn	Ile	Ile		
1025					1030					1035					1040		
Leu	Glu	His	His	Val	Ala	Gln	Glu	Pro	Ser	Pro	Gly	Gln	Pro	Ser	Thr		
				1045					1050					1055			
Phe	Ile	Val	Pro	Phe	Arg	Glu	Gln	Ala	Trp	Gln	Arg	Pro	Asp	Gly	Gln		
			1060					1065					1070				
Pro	Ala	Thr	Arg	Glu	His	Leu	Leu	Met	Ala	Leu	Ala	Gly	Ile	Asp	Thr		
		1075				1080						1085					
Leu	Leu	Ile	Arg	Ala	Ser	Tyr	Ala	Gln	Gln	Pro	Ala	Glu	Ser	Arg	Val		
	1090					1095					1100						
Ser	Gly	Ile	Ser	Met	Asp	Val	Ala	Val	Pro	Glu	Glu	Thr	Gly	Gln	Asp		
1105					1110					1115					1120		
Pro	Ala	Leu	Glu	Val	Glu	Gln	Cys	Ser	Cys	Pro	Pro	Gly	Tyr	Arg	Gly		
				1125					1130					1135			
Pro	Ser	Cys	Gln	Asp	Cys	Asp	Thr	Gly	Tyr	Thr	Arg	Thr	Pro	Ser	Gly		
				1140				1145					1150				
Leu	Tyr	Leu	Gly	Thr	Cys	Glu	Arg	Cys	Ser	Cys	His	Gly	His	Ser	Glu		
	1155					1160						1165					
Ala	Cys	Glu	Pro	Glu	Thr	Gly	Ala	Cys	Gln	Gly	Cys	Gln	His	His	Thr		
	1170					1175					1180						
Glu	Gly	Pro	Arg	Cys	Glu	Gln	Cys	Gln	Pro	Gly	Tyr	Tyr	Gly	Asp	Ala		
1185					1190					1195					1200		
Gln	Arg	Gly	Thr	Pro	Gln	Asp	Cys	Gln	Leu	Cys	Pro	Cys	Tyr	Gly	Asp		
				1205				1210						1215			
Pro	Ala	Ala	Gly	Gln	Ala	Ala	His	Thr	Cys	Phe	Leu	Asp	Thr	Asp	Gly		
			1220					1225					1230				
His	Pro	Thr	Cys	Asp	Ala	Cys	Ser	Pro	Gly	His	Ser	Gly	Arg	His	Cys		
		1235					1240					1245					
Glu	Arg	Cys	Ala	Pro	Gly	Tyr	Gly	Asn	Pro	Ser	Gln	Gly	Gln	Pro			
	1250					1255					1260						
Cys	Gln	Arg	Asp	Ser	Gln	Val	Pro	Gly	Pro	Ile	Gly	Cys	Asn	Cys	Asp		
1265					1270					1275					1280		
Pro	Gln	Gly	Ser	Val	Ser	Ser	Gln	Cys	Asp	Ala	Ala	Gly	Gln	Cys	Gln		
				1285				1290						1295			
Cys	Lys	Ala	Gln	Val	Glu	Gly	Leu	Thr	Cys	Ser	His	Cys	Arg	Pro	His		
		1300					1305					1310					
His	Phe	His	Leu	Ser	Ala	Ser	Asn	Pro	Asp	Gly	Cys	Leu	Pro	Cys	Phe		
		1315					1320					1325					

Cys	Met	Gly	Ile	Thr	Gln	Gln	Cys	Ala	Ser	Ser	Ala	Tyr	Thr	Arg	His		
	1330					1335					1340						
Leu	Ile	Ser	Thr	His	Phe	Ala	Pro	Gly	Asp	Phe	Gln	Gly	Phe	Ala	Leu		
	1345				1350					1355					1360		
Val	Asn	Pro	Gln	Arg	Asn	Ser	Arg	Leu	Thr	Gly	Glu	Phe	Thr	Val	Glu		
			1365						1370					1375			
Pro	Val	Pro	Glu	Gly	Ala	Gln	Leu	Ser	Phe	Gly	Asn	Phe	Ala	Gln	Leu		
			1380					1385						1390			
Gly	His	Glu	Ser	Phe	Tyr	Trp	Gln	Leu	Pro	Glu	Thr	Tyr	Gln	Gly	Asp		
		1395					1400					1405					
Lys	Val	Ala	Ala	Tyr	Gly	Gly	Lys	Leu	Arg	Tyr	Thr	Leu	Ser	Tyr	Thr		
	1410				1415						1420						
Ala	Gly	Pro	Gln	Gly	Ser	Pro	Leu	Ser	Asp	Pro	Asp	Val	Gln	Ile	Thr		
	1425				1430					1435				1440			
Gly	Asn	Asn	Ile	Met	Leu	Val	Ala	Ser	Gln	Pro	Ala	Leu	Gln	Gly	Pro		
			1445						1450					1455			
Glu	Arg	Arg	Ser	Tyr	Glu	Ile	Met	Phe	Arg	Glu	Glu	Phe	Trp	Arg	Arg		
			1460					1465					1470				
Pro	Asp	Gly	Gln	Pro	Ala	Thr	Arg	Glu	His	Leu	Leu	Met	Ala	Leu	Ala		
		1475					1480					1485					
Asp	Leu	Asp	Glu	Leu	Leu	Ile	Arg	Ala	Thr	Phe	Ser	Ser	Val	Pro	Leu		
	1490				1495						1500						
Val	Ala	Ser	Ile	Ser	Ala	Val	Ser	Leu	Glu	Val	Ala	Gln	Pro	Gly	Pro		
	1505				1510					1515				1520			
Ser	Asn	Arg	Pro	Arg	Ala	Leu	Glu	Val	Glu	Glu	Cys	Arg	Cys	Pro	Pro		
			1525						1530					1535			
Gly	Tyr	Ile	Gly	Leu	Ser	Cys	Gln	Asp	Cys	Ala	Pro	Gly	Tyr	Thr	Arg		
		1540						1545					1550				
Thr	Gly	Ser	Gly	Leu	Tyr	Leu	Gly	His	Cys	Glu	Leu	Cys	Glu	Cys	Asn		
		1555					1560					1565					
Gly	His	Ser	Asp	Leu	Cys	His	Pro	Glu	Thr	Gly	Ala	Cys	Ser	Gln	Cys		
	1570				1575						1580						
Gln	His	Asn	Ala	Ala	Gly	Glu	Phe	Cys	Glu	Leu	Cys	Ala	Pro	Gly	Tyr		
	1585				1590					1595				1600			
Tyr	Gly	Asp	Ala	Thr	Ala	Gly	Thr	Pro	Glu	Asp	Cys	Gln	Pro	Cys	Ala		
			1605						1610					1615			
Cys	Pro	Leu	Thr	Asn	Pro	Glu	Asn	Met	Phe	Ser	Arg	Thr	Cys	Glu	Ser		
			1620					1625					1630				
Leu	Gly	Ala	Gly	Gly	Tyr	Arg	Cys	Thr	Ala	Cys	Glu	Pro	Gly	Tyr	Thr		
		1635					1640						1645				
Gly	Gln	Tyr	Cys	Glu	Gln	Cys	Gly	Pro	Gly	Tyr	Val	Gly	Asn	Pro	Ser		
	1650				1655						1660						
Val	Gln	Gly	Gly	Gln	Cys	Leu	Pro	Glu	Thr	Asn	Gln	Ala	Pro	Leu	Val		
	1665				1670					1675				1680			
Val	Glu	Val	His	Pro	Ala	Arg	Ser	Ile	Val	Pro	Gln	Gly	Gly	Ser	His		
			1685						1690					1695			
Ser	Leu	Arg	Cys	Gln	Val	Ser	Gly	Arg	Gly	Pro	His	Tyr	Phe	Tyr	Trp		
			1700					1705					1710				
Ser	Arg	Glu	Asp	Gly	Arg	Pro	Val	Pro	Ser	Gly	Thr	Gln	Gln	Arg	His		
		1715					1720						1725				
Gln	Gly	Ser	Glu	Leu	His	Phe	Pro	Ser	Val	Gln	Pro	Ser	Asp	Ala	Gly		
	1730				1735						1740						
Val	Tyr	Ile	Cys	Thr	Cys	Arg	Asn	Leu	His	Arg	Ser	Asn	Thr	Ser	Arg		
	1745				1750					1755				1760			
Ala	Glu	Leu	Leu	Val	Thr	Glu	Ala	Pro	Ser	Lys	Pro	Ile	Thr	Val	Thr		
			1765						1770					1775			
Val	Glu	Glu	Gln	Arg	Ser	Gln	Ser	Val	Arg	Pro	Gly	Ala	Asp	Val	Thr		
		1780						1785					1790				
Phe	Ile	Cys	Thr	Ala	Lys	Ser	Lys	Ser	Pro	Ala	Tyr	Thr	Leu	Val	Trp		
		1795					1800					1805					

Thr	Arg	Leu	His	Asn	Gly	Lys	Leu	Pro	Thr	Arg	Ala	Met	Asp	Phe	Asn		
1810						1815					1820						
Gly	Ile	Leu	Thr	Ile	Arg	Asn	Val	Gln	Leu	Ser	Asp	Ala	Gly	Thr	Tyr		
1825					1830					1835					1840		
Val	Cys	Thr	Gly	Ser	Asn	Met	Phe	Ala	Met	Asp	Gln	Gly	Thr	Ala	Thr		
				1845					1850						1855		
Leu	His	Val	Gln	Ala	Ser	Gly	Thr	Leu	Ser	Ala	Pro	Val	Val	Ser	Ile		
			1860					1865						1870			
His	Pro	Pro	Gln	Leu	Thr	Val	Gln	Pro	Gly	Gln	Leu	Ala	Glu	Phe	Arg		
			1875				1880					1885					
Cys	Ser	Ala	Thr	Gly	Ser	Pro	Thr	Pro	Thr	Leu	Glu	Trp	Thr	Gly	Gly		
			1890			1895					1900						
Pro	Gly	Gly	Gln	Leu	Pro	Ala	Lys	Ala	Gln	Ile	His	Gly	Gly	Ile	Leu		
1905					1910					1915					1920		
Arg	Leu	Pro	Ala	Val	Glu	Pro	Thr	Asp	Gln	Ala	Gln	Tyr	Leu	Cys	Arg		
				1925					1930						1935		
Ala	His	Ser	Ser	Ala	Gly	Gln	Gln	Val	Ala	Arg	Ala	Val	Leu	His	Val		
			1940					1945						1950			
His	Gly	Gly	Gly	Gly	Pro	Arg	Val	Gln	Val	Ser	Pro	Glu	Arg	Thr	Gln		
			1955				1960					1965					
Val	His	Ala	Gly	Arg	Thr	Val	Arg	Leu	Tyr	Cys	Arg	Ala	Ala	Gly	Val		
			1970			1975					1980						
Pro	Ser	Ala	Thr	Ile	Thr	Trp	Arg	Lys	Glu	Gly	Gly	Ser	Leu	Pro	Pro		
1985					1990					1995					2000		
Gln	Ala	Arg	Ser	Glu	Arg	Thr	Asp	Ile	Ala	Thr	Leu	Leu	Ile	Pro	Ala		
				2005					2010						2015		
Ile	Thr	Thr	Ala	Asp	Ala	Gly	Phe	Tyr	Leu	Cys	Val	Ala	Thr	Ser	Pro		
			2020					2025						2030			
Ala	Gly	Thr	Ala	Gln	Ala	Arg	Ile	Gln	Val	Val	Val	Leu	Ser	Ala	Ser		
			2035				2040					2045					
Asp	Ala	Ser	Gln	Pro	Pro	Val	Lys	Ile	Glu	Ser	Ser	Ser	Pro	Ser	Val		
			2050			2055					2060						
Thr	Glu	Gly	Gln	Thr	Leu	Asp	Leu	Asn	Cys	Val	Val	Ala	Gly	Ser	Ala		
2065					2070					2075					2080		
His	Ala	Gln	Val	Thr	Trp	Tyr	Arg	Arg	Gly	Gly	Ser	Leu	Pro	His	His		
				2085					2090						2095		
Thr	Gln	Val	His	Gly	Ser	Arg	Leu	Arg	Leu	Pro	Gln	Val	Ser	Pro	Ala		
			2100					2105						2110			
Asp	Ser	Gly	Glu	Tyr	Val	Cys	Arg	Val	Glu	Asn	Gly	Ser	Gly	Pro	Lys		
			2115				2120					2125					
Glu	Ala	Ser	Ile	Thr	Val	Ser	Val	Leu	His	Gly	Thr	His	Ser	Gly	Pro		
			2130			2135					2140						
Ser	Tyr	Thr	Pro	Val	Pro	Gly	Ser	Thr	Arg	Pro	Ile	Arg	Ile	Glu	Pro		
2145					2150					2155					2160		
Ser	Ser	Ser	His	Val	Ala	Glu	Gly	Gln	Thr	Leu	Asp	Leu	Asn	Cys	Val		
				2165					2170						2175		
Val	Pro	Gly	Gln	Ala	His	Ala	Gln	Val	Thr	Trp	His	Lys	Arg	Gly	Gly		
			2180					2185						2190			
Ser	Leu	Pro	Ala	Arg	His	Gln	Thr	His	Gly	Ser	Leu	Leu	Arg	Leu	His		
			2195				2200					2205					
Gln	Val	Thr	Pro	Ala	Asp	Ser	Gly	Glu	Tyr	Val	Cys	His	Val	Val	Gly		
			2210			2215					2220						
Thr	Ser	Gly	Pro	Leu	Glu	Ala	Ser	Val	Leu	Val	Thr	Ile	Glu	Ala	Ser		
2225					2230					2235					2240		
Val	Ile	Pro	Gly	Pro	Ile	Pro	Pro	Val	Arg	Ile	Glu	Ser	Ser	Ser	Ser		
				2245					2250						2255		
Thr	Val	Ala	Glu	Gly	Gln	Thr	Leu	Asp	Leu	Ser	Cys	Val	Val	Ala	Gly		
			2260					2265						2270			
Gln	Ala	His	Ala	Gln	Val	Thr	Trp	Tyr	Lys	Arg	Gly	Gly	Ser	Leu	Pro		
			2275				2280								2285		

Ala Arg His Gln Val Arg Gly Ser Arg Leu Tyr Ile Phe Gln Ala Ser
 2290 2295 2300
 Pro Ala Asp Ala Gly Gln Tyr Val Cys Arg Ala Ser Asn Gly Met Glu
 2305 2310 2315 2320
 Ala Ser Ile Thr Val Thr Val Thr Gly Thr Gln Gly Ala Asn Leu Ala
 2325 2330 2335
 Tyr Pro Ala Gly Ser Thr Gln Pro Ile Arg Ile Glu Pro Ser Ser Ser
 2340 2345 2350
 Gln Val Ala Glu Gly Gln Thr Leu Asp Leu Asn Cys Val Val Pro Gly
 2355 2360 2365
 Gln Ser His Ala Gln Val Thr Trp His Lys Arg Gly Gly Ser Leu Pro
 2370 2375 2380
 Val Arg His Gln Thr His Gly Ser Leu Leu Arg Leu Tyr Gln Ala Ser
 2385 2390 2395 2400
 Pro Ala Asp Ser Gly Glu Tyr Val Cys Arg Val Leu Gly Ser Ser Val
 2405 2410 2415
 Pro Leu Glu Ala Ser Val Leu Val Thr Ile Glu Pro Ala Gly Ser Val
 2420 2425 2430
 Pro Ala Leu Gly Val Thr Pro Thr Val Arg Ile Glu Ser Ser Ser Ser
 2435 2440 2445
 Gln Val Ala Glu Gly Gln Thr Leu Asp Leu Asn Cys Leu Val Ala Gly
 2450 2455 2460
 Gln Ala His Ala Gln Val Thr Trp His Lys Arg Gly Gly Ser Leu Pro
 2465 2470 2475 2480
 Ala Arg His Gln Val His Gly Ser Arg Leu Arg Leu Leu Gln Val Thr
 2485 2490 2495
 Pro Ala Asp Ser Gly Glu Tyr Val Cys Arg Val Val Gly Ser Ser Gly
 2500 2505 2510
 Thr Gln Glu Ala Ser Val Leu Val Thr Ile Gln Gln Arg Leu Ser Gly
 2515 2520 2525
 Ser His Ser Gln Gly Val Ala Tyr Pro Val Arg Ile Glu Ser Ser Ser
 2530 2535 2540
 Ala Ser Leu Ala Asn Gly His Thr Leu Asp Leu Asn Cys Leu Val Ala
 2545 2550 2555 2560
 Ser Gln Ala Pro His Thr Ile Thr Trp Tyr Lys Arg Gly Gly Ser Leu
 2565 2570 2575
 Pro Ser Arg His Gln Ile Val Gly Ser Arg Leu Arg Ile Pro Gln Val
 2580 2585 2590
 Thr Pro Ala Asp Ser Gly Glu Tyr Val Cys His Val Ser Asn Gly Ala
 2595 2600 2605
 Gly Ser Arg Glu Thr Ser Leu Ile Val Thr Ile Gln Gly Ser Gly Ser
 2610 2615 2620
 Ser His Val Pro Arg Val Ser Pro Pro Ile Arg Ile Glu Ser Ser Ser
 2625 2630 2635 2640
 Pro Thr Val Val Glu Gly Gln Thr Leu Asp Leu Asn Cys Val Val Ala
 2645 2650 2655
 Arg Gln Pro Gln Ala Ile Ile Thr Trp Tyr Lys Arg Gly Gly Ser Leu
 2660 2665 2670
 Pro Ser Arg His Gln Thr His Gly Ser His Leu Arg Leu His Gln Met
 2675 2680 2685
 Ser Val Ala Asp Ser Gly Glu Tyr Val Cys Arg Ala Asn Asn Asn Ile
 2690 2695 2700
 Asp Ala Leu Glu Ala Ser Ile Val Ile Ser Val Ser Pro Ser Ala Gly
 2705 2710 2715 2720
 Ser Pro Ser Ala Pro Gly Ser Ser Met Pro Ile Arg Ile Glu Ser Ser
 2725 2730 2735
 Ser Ser His Val Ala Glu Gly Glu Thr Leu Asp Leu Asn Cys Val Val
 2740 2745 2750
 Pro Gly Gln Ala His Ala Gln Val Thr Trp His Lys Arg Gly Gly Ser
 2755 2760 2765

Leu	Pro	Ser	Tyr	His	Gln	Thr	Arg	Gly	Ser	Arg	Leu	Arg	Leu	His	His	2770	2775	2780
Val	Ser	Pro	Ala	Asp	Ser	Gly	Glu	Tyr	Val	Cys	Arg	Val	Met	Gly	Ser	2785	2790	2795
Ser	Gly	Pro	Leu	Glu	Ala	Ser	Val	Leu	Val	Thr	Ile	Glu	Ala	Ser	Gly	2805	2810	2815
Ser	Ser	Ala	Val	His	Val	Pro	Ala	Pro	Gly	Gly	Ala	Pro	Pro	Ile	Arg	2820	2825	2830
Ile	Glu	Pro	Ser	Ser	Ser	Arg	Val	Ala	Glu	Gly	Gln	Thr	Leu	Asp	Leu	2835	2840	2845
Lys	Cys	Val	Val	Pro	Gly	Gln	Ala	His	Ala	Gln	Val	Thr	Trp	His	Lys	2850	2855	2860
Arg	Gly	Gly	Asn	Leu	Pro	Ala	Arg	His	Gln	Val	His	Gly	Pro	Leu	Leu	2865	2870	2875
Arg	Leu	Asn	Gln	Val	Ser	Pro	Ala	Asp	Ser	Gly	Glu	Tyr	Ser	Cys	Gln	2885	2890	2895
Val	Thr	Gly	Ser	Ser	Gly	Thr	Leu	Glu	Ala	Ser	Val	Leu	Val	Thr	Ile	2900	2905	2910
Glu	Pro	Ser	Ser	Pro	Gly	Pro	Ile	Pro	Ala	Pro	Gly	Leu	Ala	Gln	Pro	2915	2920	2925
Ile	Tyr	Ile	Glu	Ala	Ser	Ser	Ser	His	Val	Thr	Glu	Gly	Gln	Thr	Leu	2930	2935	2940
Asp	Leu	Asn	Cys	Val	Val	Pro	Gly	Gln	Ala	His	Ala	Gln	Val	Thr	Trp	2945	2950	2955
Tyr	Lys	Arg	Gly	Gly	Ser	Leu	Pro	Ala	Arg	His	Gln	Thr	His	Gly	Ser	2965	2970	2975
Gln	Leu	Arg	Leu	His	His	Val	Ser	Pro	Ala	Asp	Ser	Gly	Glu	Tyr	Val	2980	2985	2990
Cys	Arg	Ala	Ala	Gly	Gly	Pro	Gly	Pro	Glu	Gln	Glu	Ala	Ser	Phe	Thr	2995	3000	3005
Val	Thr	Val	Pro	Pro	Ser	Glu	Gly	Ser	Ser	Tyr	Arg	Leu	Arg	Ser	Pro	3010	3015	3020
Val	Ile	Ser	Ile	Asp	Pro	Pro	Ser	Ser	Thr	Val	Gln	Gly	Gln	Asp		3025	3030	3035
Ala	Ser	Phe	Lys	Cys	Leu	Ile	His	Asp	Gly	Ala	Ala	Pro	Ile	Ser	Leu	3045	3050	3055
Glu	Trp	Lys	Thr	Arg	Asn	Gln	Glu	Leu	Glu	Asp	Asn	Val	His	Ile	Ser	3060	3065	3070
Pro	Asn	Gly	Ser	Ile	Ile	Thr	Ile	Val	Gly	Thr	Arg	Pro	Ser	Asn	His	3075	3080	3085
Gly	Thr	Tyr	Arg	Cys	Val	Ala	Ser	Asn	Ala	Tyr	Gly	Val	Ala	Gln	Ser	3090	3095	3100
Val	Val	Asn	Leu	Ser	Val	His	Gly	Pro	Pro	Thr	Val	Ser	Val	Leu	Pro	3105	3110	3115
Glu	Gly	Pro	Val	Trp	Val	Lys	Val	Gly	Lys	Ala	Val	Thr	Leu	Glu	Cys	3125	3130	3135
Val	Ser	Ala	Gly	Glu	Pro	Arg	Ser	Ser	Ala	Arg	Trp	Thr	Arg	Ile	Ser	3140	3145	3150
Ser	Thr	Pro	Ala	Lys	Leu	Glu	Gln	Arg	Thr	Tyr	Gly	Leu	Met	Asp	Ser	3155	3160	3165
His	Thr	Val	Leu	Gln	Ile	Ser	Ser	Ala	Lys	Pro	Ser	Asp	Ala	Gly	Thr	3170	3175	3180
Tyr	Val	Cys	Leu	Ala	Gln	Asn	Ala	Leu	Gly	Thr	Ala	Gln	Lys	Gln	Val	3185	3190	3195
Glu	Val	Ile	Val	Asp	Thr	Gly	Ala	Met	Ala	Pro	Gly	Ala	Pro	Gln	Val	3205	3210	3215
Gln	Ala	Glu	Glu	Ala	Glu	Leu	Thr	Val	Glu	Ala	Gly	His	Thr	Ala	Thr	3220	3225	3230
Leu	Arg	Cys	Ser	Ala	Thr	Gly	Ser	Pro	Ala	Arg	Thr	Ile	His	Trp	Ser	3235	3240	3245

Lys Leu Arg Ser Pro Leu Pro Trp Gln His Arg Leu Glu Gly Asp Thr
 3250 3255 3260
 Leu Ile Ile Pro Arg Val Ala Gln Gln Asp Ser Gly Gln Tyr Ile Cys
 3265 3270 3275 3280
 Asn Ala Thr Ser Pro Ala Gly His Ala Glu Ala Thr Ile Ile Leu His
 3285 3290 3295
 Val Glu Ser Pro Pro Tyr Ala Thr Thr Val Pro Glu His Ala Ser Val
 3300 3305 3310
 Gln Ala Gly Glu Thr Val Gln Leu Gln Cys Leu Ala His Gly Thr Pro
 3315 3320 3325
 Pro Leu Thr Phe Gln Trp Ser Arg Val Gly Ser Ser Leu Pro Gly Arg
 3330 3335 3340
 Ala Thr Ala Arg Asn Glu Leu Leu His Phe Glu Arg Ala Ala Pro Glu
 3345 3350 3355 3360
 Asp Ser Gly Arg Tyr Arg Cys Arg Val Thr Asn Lys Val Gly Ser Ala
 3365 3370 3375
 Glu Ala Phe Ala Gln Leu Leu Val Gln Gly Pro Pro Gly Ser Leu Pro
 3380 3385 3390
 Ala Thr Ser Ile Pro Ala Gly Ser Thr Pro Thr Val Gln Val Thr Pro
 3395 3400 3405
 Gln Leu Glu Thr Lys Ser Ile Gly Ala Ser Val Glu Phe His Cys Ala
 3410 3415 3420
 Val Pro Ser Asp Arg Gly Thr Gln Leu Arg Trp Phe Lys Glu Gly Gly
 3425 3430 3435 3440
 Gln Leu Pro Pro Gly His Ser Val Gln Asp Gly Val Leu Arg Ile Gln
 3445 3450 3455
 Asn Leu Asp Gln Ser Cys Gln Gly Thr Tyr Ile Cys Gln Ala His Gly
 3460 3465 3470
 Pro Trp Gly Lys Ala Gln Ala Ser Ala Gln Leu Val Ile Gln Ala Leu
 3475 3480 3485
 Pro Ser Val Leu Ile Asn Ile Arg Thr Ser Val Gln Thr Val Val Val
 3490 3495 3500
 Gly His Ala Val Glu Phe Glu Cys Leu Ala Leu Gly Asp Pro Lys Pro
 3505 3510 3515 3520
 Gln Val Thr Trp Ser Lys Val Gly Gly His Leu Arg Pro Gly Ile Val
 3525 3530 3535
 Gln Ser Gly Gly Val Val Arg Ile Ala His Val Glu Leu Ala Asp Ala
 3540 3545 3550
 Gly Gln Tyr Arg Cys Thr Ala Thr Asn Ala Ala Gly Thr Thr Gln Ser
 3555 3560 3565
 His Val Leu Leu Leu Val Gln Ala Leu Pro Gln Ile Ser Met Pro Gln
 3570 3575 3580
 Glu Val Arg Val Pro Ala Gly Ser Ala Ala Val Phe Pro Cys Ile Ala
 3585 3590 3595 3600
 Ser Gly Tyr Pro Thr Pro Asp Ile Ser Trp Ser Lys Leu Asp Gly Ser
 3605 3610 3615
 Leu Pro Pro Asp Ser Arg Leu Glu Asn Asn Met Leu Met Leu Pro Ser
 3620 3625 3630
 Val Gln Pro Gln Asp Ala Gly Thr Tyr Val Cys Thr Ala Thr Asn Arg
 3635 3640 3645
 Gln Gly Lys Val Lys Ala Phe Ala His Leu Gln Val Pro Glu Arg Val
 3650 3655 3660
 Val Pro Tyr Phe Thr Gln Thr Pro Tyr Ser Phe Leu Pro Leu Pro Thr
 3665 3670 3675 3680
 Ile Lys Asp Ala Tyr Arg Lys Phe Glu Ile Lys Ile Thr Phe Arg Pro
 3685 3690 3695
 Asp Ser Ala Asp Gly Met Leu Leu Tyr Asn Gly Gln Lys Arg Val Pro
 3700 3705 3710
 Gly Ser Pro Thr Asn Leu Ala Asn Arg Gln Pro Asp Phe Ile Ser Phe
 3715 3720 3725

Gly Leu Val Gly Gly Arg Pro Glu Phe Arg Phe Asp Ala Gly Ser Gly
 3730 3735 3740
 Met Ala Thr Ile Arg His Pro Thr Pro Leu Ala Leu Gly His Phe His
 3745 3750 3755 3760
 Thr Val Thr Leu Leu Arg Ser Leu Thr Gln Gly Ser Leu Ile Val Gly
 3765 3770 3775
 Asp Leu Ala Pro Val Asn Gly Thr Ser Gln Gly Lys Phe Gln Gly Leu
 3780 3785 3790
 Asp Leu Asn Glu Glu Leu Tyr Leu Gly Gly Tyr Pro Asp Tyr Gly Ala
 3795 3800 3805
 Ile Pro Lys Ala Gly Leu Ser Ser Gly Phe Ile Gly Cys Val Arg Glu
 3810 3815 3820
 Leu Arg Ile Gln Gly Glu Glu Ile Val Phe His Asp Leu Asn Leu Thr
 3825 3830 3835 3840
 Ala His Gly Ile Ser His Cys Pro Thr Cys Arg Asp Arg Pro Cys Gln
 3845 3850 3855
 Asn Gly Gly Gln Cys His Asp Ser Glu Ser Ser Ser Tyr Val Cys Val
 3860 3865 3870
 Cys Pro Ala Gly Phe Thr Gly Ser Arg Cys Glu His Ser Gln Ala Leu
 3875 3880 3885
 His Cys His Pro Glu Ala Cys Gly Pro Asp Ala Thr Cys Val Asn Arg
 3890 3895 3900
 Pro Asp Gly Arg Gly Tyr Thr Cys Arg Cys His Leu Gly Arg Ser Gly
 3905 3910 3915 3920
 Leu Arg Cys Glu Glu Gly Val Thr Val Thr Thr Pro Ser Leu Ser Gly
 3925 3930 3935
 Ala Gly Ser Tyr Leu Ala Leu Pro Ala Leu Thr Asn Thr His His Glu
 3940 3945 3950
 Leu Arg Leu Asp Val Glu Phe Lys Pro Leu Ala Pro Asp Gly Val Leu
 3955 3960 3965
 Leu Phe Ser Gly Gly Lys Ser Gly Pro Val Glu Asp Phe Val Ser Leu
 3970 3975 3980
 Ala Met Val Gly Gly His Leu Glu Phe Arg Tyr Glu Leu Gly Ser Gly
 3985 3990 3995 4000
 Leu Ala Val Leu Arg Thr Ala Glu Pro Leu Ala Leu Gly Arg Trp His
 4005 4010 4015
 Arg Val Ser Ala Glu Arg Leu Asn Lys Asp Gly Ser Leu Arg Val Asn
 4020 4025 4030
 Gly Gly Arg Pro Val Leu Arg Ser Ser Pro Gly Lys Ser Gln Gly Leu
 4035 4040 4045
 Asn Leu His Thr Leu Leu Tyr Leu Gly Gly Val Glu Pro Ser Val Pro
 4050 4055 4060
 Leu Ser Pro Ala Thr Asn Met Ser Ala His Phe Arg Gly Cys Val Gly
 4065 4070 4075 4080
 Glu Val Ser Val Asn Gly Lys Arg Leu Asp Leu Thr Tyr Ser Phe Leu
 4085 4090 4095
 Gly Ser Gln Gly Ile Gly Gln Cys Tyr Asp Ser Ser Pro Cys Glu Arg
 4100 4105 4110
 Gln Pro Cys Gln His Gly Ala Thr Cys Met Pro Ala Gly Glu Tyr Glu
 4115 4120 4125
 Phe Gln Cys Leu Cys Arg Asp Gly Ile Lys Gly Asp Leu Cys Glu His
 4130 4135 4140
 Glu Glu Asn Pro Cys Gln Leu Arg Glu Pro Cys Leu His Gly Gly Thr
 4145 4150 4155 4160
 Cys Gln Gly Thr Arg Cys Leu Cys Leu Pro Gly Phe Ser Gly Pro Arg
 4165 4170 4175
 Cys Gln Gln Gly Ser Gly His Gly Ile Ala Glu Ser Asp Trp His Leu
 4180 4185 4190
 Glu Gly Ser Gly Gly Asn Asp Ala Pro Gly Gln Tyr Gly Ala Tyr Phe
 4195 4200 4205

His Asp Asp Gly Phe Leu Ala Phe Pro Gly His Val Phe Ser Arg Ser
 4210 4215 4220
 Leu Pro Glu Val Pro Glu Thr Ile Glu Leu Glu Val Arg Thr Ser Thr
 4225 4230 4235 4240
 Ala Ser Gly Leu Leu Leu Trp Gln Gly Val Glu Val Gly Glu Ala Gly
 4245 4250 4255
 Gln Gly Lys Asp Phe Ile Ser Leu Gly Leu Gln Asp Gly His Leu Val
 4260 4265 4270
 Phe Arg Tyr Gln Leu Gly Ser Gly Glu Ala Arg Leu Val Ser Glu Asp
 4275 4280 4285
 Pro Ile Asn Asp Gly Glu Trp His Arg Val Thr Ala Leu Arg Glu Gly
 4290 4295 4300
 Arg Arg Gly Ser Ile Gln Val Asp Gly Glu Glu Leu Val Ser Gly Arg
 4305 4310 4315 4320
 Ser Pro Gly Pro Asn Val Ala Val Asn Ala Lys Gly Ser Ile Tyr Ile
 4325 4330 4335
 Gly Gly Ala Pro Asp Val Ala Thr Leu Thr Gly Gly Arg Phe Ser Ser
 4340 4345 4350
 Gly Ile Thr Gly Cys Val Lys Asn Leu Val Leu His Ser Ala Arg Pro
 4355 4360 4365
 Gly Ala Pro Pro Pro Gln Pro Leu Asp Leu Gln His Arg Ala Gln Ala
 4370 4375 4380
 Gly Ala Asn Thr Arg Pro Cys Pro Ser
 4385 4390

<210> 367
 <211> 534
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(534)
 <223> n = g, a, c or t

<400> 367
 atatgctcat ccagatcaaa acgcaggtgg aggcctcgga ggagagcgcc ctcaaccacc 60
 tccagaaccc gggcgacgcg gccgagggcc gggcggccaa gaggtgcgag aaggccgagg 120
 agaaggccga ncggaagatt tgctgaaaac tngcatgtag atgcttggtg gagctgtgtc 180
 cggctggatt agcagtaaga gcgaagttca gtcggtgagc gcggtcgggc ggttttccag 240
 ggtccgatgg gattctcttg gccaaccttg gtggttagatg tggcttgact acccttggaa 300
 ggaaaggcct ggataagcct agaagaagcc cctttttggt tgtatctctt ctngttcttt 360
 cctgtctatt ncctatcttg ctcttcagct tttnananagt ttaacaggnt gtctgcttgg 420
 gcataattgg gctcatgatg ggtattcgat gaccctttcg aatcatggaa ngtttttcgg 480
 aattttgtta aacggtggtg tgagtagatt ttacggggga aaagggttaa ttgt 534

<210> 368
 <211> 373
 <212> DNA
 <213> Homo sapiens

<400> 368
 atatgctcat ccagatcaaa acgcaggtgg aggcctcgga ggagagcgcc ctcaaccacc 60
 tccagaaccc gggcgacgcg gccgagggcc gggcggccaa gaggtgcgag aaggccgagg 120
 agaaggccaa gggagattgc gaagatggca gagatgctgg tggagctggt cggcgagata 180
 gagaagagcg agtcgtcgtg agcgcggtcg gcggtttcca gccaatggat tctggtcaac 240
 tgggtggagat tggctgacac cctggagaag ccgaaaccag agagcctttt gttttctctt 300
 ttttttcctg tctatgctct gtctcacttt aacactacgt tttctgctat gggctcctggt 360
 gagattgatg acc 373

```

<210> 369
<211> 529
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(529)
<223> n = g, a, c or t

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<400> 369
atatgctcat ccagatcaaa acgcaggtgg aggcctcgga ggagagcgcc ctcaaccacc      60
tccagaacccc gggcgacgcg gccgagggcc gggcgggccaa agagggtgcga gaaggccgag    120
gagaaggcca aggagattgc gaagatggca gagatgctgg tggagctggg ccggcggata    180
gagaagagcg agtcgctcgtg agcgcggtcg gcggtttcca gccaatggat tctggtcaac    240
tgggtggagat tggctgacac cctggagaag ccgaaaacca gagagccttt gtgtttcctc    300
ttttttttcc ctgtctatgc tctgtcctca cttaaacta cgtttcctgc tatggtcatg    360
tggttgatga ccctcaatat gagtttcgaa tggtaacgtg tatagagtag tgggaagtaa    420
tttggtttga anaatgctct cacaatacag ggaattaggg acctaggatt gtaagctctt    480
gccaggcagg tcaacatttt gttcccgggg ctttgggggg taattttcta    529

```

```

<210> 370
<211> 595
<212> DNA
<213> Homo sapiens

```

```

<400> 370
ccccgttgaa gtctggctct ttcttcagta gttgctgcat ggagtcgtct tccagaatta      60
atgcagctcc ttcagcacct ccagagctgg agaactccaa ctgtgagtct catgtgtcac    120
acacagaccc aaagttccag ggagctatca ggtcacacaa gaaatagcaa agcacctcaa    180
aaatttagaa ataaccacca aagccccgga acaaattgtga ctgctgcaag agcttacaat    240
ctaggtccta attcctgtat gtgagagcat tttcaaacaa aattacttcc caaacaaaaa    300
cacgttaaca atcgaaactc atattgaggt catcaaccac agaccatagc agaaaacgta    360
gtgttaagtg agacagagca tagacaggaa aaaaaagaga aaacaaaagg ctctctgggt    420
tcggcttctc cagggtgtca gccaatctcc accagttgac cagaatccat tggctggaaa    480
ccgccgaccg cgctcacgac gactcgctct tctctatccg ccggaccagc tccaccagca    540
tcttctgcca tcttcgcaat ctctctggcc ttctcctcgg cttctcgcac ctctt      595

```

```

<210> 371
<211> 481
<212> DNA
<213> Homo sapiens

```

```

<400> 371
ccccgttgaa gtctgaccc ttcttcagta gttgctgcat ggagtcgtct tccagaatta      60
atgcagctcc ttcagcacct ccagagctgg agaactccaa ctgtgagtct catgtgtcac    120
acacagaccc aaagttccag ggagctatca ggtcacacaa gaaatagcaa agcacctcaa    180
aaatttagaa ataaccacca aagccccgga acaaattgtga ctgctgcaag agcttacaat    240
ctaggcccta attcctgtat gtgagagcat tttcaaacaa aattacttcc caaacaaaaa    300
cacgttaaca atcgaaactc atattgaggt catcaaccac agaccatagc agaaaacgta    360
gtgttaagtg agacagagca tagacaggaa aaaaaagaga aaacaaaagg ctctctgggt    420
tcggcttctc cagggtgtca gccaatctcc accagttgac cagaatccat tggctggaaa    480
c                                     481

```

```

<210> 372
<211> 472
<212> DNA
<213> Homo sapiens

```

```

<400> 372
ccccgttgaa gtctggctct ttcttcagta gttgctgcat ggagtcgtct tccagaatta      60

```

atgcagctcc	ttcagcacct	ccagagctgg	agaactccaa	ctgtgagtct	catgtgtcac	120
acacagaccc	aaagtccag	ggagctatca	ggtcacacaa	gaaatagcaa	agcacctcaa	180
aaatttagaa	ataaccacca	aagcccggga	acaaatgtga	ctgctgcaag	agcttacaat	240
ctaggcccta	attcctgtat	gtgagagcat	tttcaaacaa	aattacttcc	caaacaaaaa	300
cacgttaaca	atcgaaactc	atattgaggt	catcaaccac	agaccatagc	agaaaaacgta	360
gtgttaagt	agacagagca	tagacaggaa	aaaaaagaga	aaacaaaagg	ctctctggtt	420
tcggcttctc	cagggtgtca	gccaatctcc	accagttgac	cagaatccat	tg	472

<210> 373
 <211> 555
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(555)
 <223> n = g, a, c or t

<400> 373						
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aatgcagctc	cttcagcacc	tccagagctg	gagaactcca	actgtgagtc	tcatgtgtca	120
cacacagacc	caaagtcca	gggagctatc	aggtcacaca	agaaatagca	aagcacctca	180
aaaatttaga	aataaccacc	aaagcccggg	aacaaatgtg	actgctgcaa	gagcttacia	240
tctaggccct	aattcctgta	tgtgagagca	ttttcaaaca	aaattacttc	ccaaacaaaa	300
acacgttaac	aatcgaaact	catattgagg	tcatcaacca	cagaccatag	cagaaaaacgt	360
agtgttaagt	gagacagagc	atagacngga	aaaaaaagag	aaaacaaaag	gctctctggt	420
ttcggcttct	ccaggggtgtc	agccaatctc	caccagttgg	ccagaatcca	ttggctggaa	480
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atctctgcca	tcttc					555

<210> 374
 <211> 394
 <212> DNA
 <213> Homo sapiens

<400> 374						
aatatgctca	tccagatcaa	aacgcaggtg	gaggcctcgg	aggagagcgc	cctcaaccac	60
ctccagaacc	cgggcgacgc	ggccgagggc	cgggcggcca	agaggtgcga	gaaggccgag	120
gagaaggcca	aggagattgc	gaagatggca	gagatgctgg	tggagctggg	ctggcggata	180
gagaagagcg	agtcgtcgtg	agcgcggtcg	gcggtttcca	gccaatggat	tctggtcaac	240
tgggtggagat	tggctgacac	cctggagaag	ccgaaaccag	agagcctttt	gttttctctt	300
ttttttcctg	tctatgctct	gtctcactta	acactacgtt	ttctgctatg	gtctgtggtt	360
gatgacctca	atatgagttt	cgatgtgtta	acgt			394

<210> 375
 <211> 236
 <212> DNA
 <213> Homo sapiens

<400> 375						
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aatgcagctc	cttcaggcac	ctccagagct	ggagaactcc	aactgtgagt	ctcatgtgtc	120
acacacagac	ccaaagtccc	agggagctat	caggtcacac	aagaaatagc	aaagcacctc	180
aaaatttag	aaataaccac	caaagcccgg	gaacaaatgt	gactgctgca	agagct	236

<210> 376
 <211> 441
 <212> DNA
 <213> Homo sapiens

<400> 376

atatgctcat	ccagatcaaa	acgcaggttg	aggcctcggg	ggagagcgcc	ctcaacacct	60
ccagaacccg	ggcgacgcgg	cgaggccggg	cgggcaaaag	tgcgagaagg	ccgaggagaa	120
ggcccaggag	attgcgaaga	ttgcagagat	gctgggtggg	ctgggtccggc	ggatagagaa	180
gagcagagtcg	tcgtgagcgc	ggtcggcggt	ttccagccca	tggattcttg	tcaactgggtg	240
gagattggct	gacaccctgg	agaagccgaa	accagagagc	cttttgtttt	ctctttttttt	300
tcctgtctat	gctctgtctc	acttaacact	acgttttctg	ctatgggtctg	tggttgatga	360
cctcaatatg	agtttcgatt	gttaacgtgt	ttttgttttg	gaagtaattt	tgtttgaaaa	420
tgctctcaca	tacaggaatt	a				441

<210> 377
 <211> 1534
 <212> DNA
 <213> Homo sapiens

<400> 377

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gggctctcta	ttgctaagca	tagcgagtgt	cggttttctc	tctccaacag	acatcgctat	120
tgcggttccg	aggcagtggg	aagagatgcg	gcccctggac	atcgctcgagc	tggcggaacc	180
ggaggaaagt	gaggtgctgg	agcccagagga	ggattttcgag	cagtttctgc	tcccgggtcat	240
caacgagatg	cgcgaggaca	tcgcgtcgct	gacgcgcgag	cacgggcggg	cgtaacctgcg	300
gaaccggagc	aagctgtggg	agatggacaa	tatgctcatc	cagatcaaaa	cgcaggtgga	360
ggcctcggag	gagagcgccc	tcaaccacct	ccagaacccg	ggcgacgcgg	ccgaggggccg	420
ggcgccaag	aggtgcgaga	aggccgagga	gaaggccaag	gagattgcga	agatggcaga	480
gatgctggg	gagctgggtc	ggcggataga	gaagagcgag	tcgtcgtgag	cgcggtcggc	540
ggtttccagc	caatggattc	tgggtcaactg	gtggagattg	gctgacaccc	tggagaagcc	600
gaaaccagag	agccttttgt	tttctctttt	ttcctgtcta	tgctctgtct	cacttaacac	660
tacgttttct	gctatgggtc	gtggttgatg	acctcaatat	gagtttcgat	tggttaacgtg	720
ttttgtttg	ggaagtaatt	ttgtttgaaa	atgctctcac	atacaggaat	tagggcctag	780
attgtaagct	cttgacagcag	tcacatttgt	tcccgggctt	tgggtgggtat	ttctaaaattt	840
ttgaggtgct	ttgctatttc	ttgtgtgacc	tgatagctcc	ctggaacttt	gggtctgtgt	900
gtgacacatg	agactcacag	ttggagtctc	ccagctctgg	aggtgctgaa	ggagctgcat	960
taattctgga	agacgactcc	atgcagcaac	tactgaagaa	aggaccagac	ttcaacgggg	1020
agtgtggatg	ggccgacctg	gctgggacctc	gtgaatctgg	agaagagctg	gagaatggat	1080
agtattgtct	gtatttggag	actttaattt	ctgtgtgaga	ccaaaggagg	agagatgtgt	1140
tttgttcaaa	atttaaat	gttgtggtac	actatcttat	gtaacctgtc	tgggtgagttt	1200
gtttggacaa	cctaactcag	ctttatttga	catggaacct	aaaatagaag	ataagatctt	1260
gatattctgt	acaagttgat	gtaataccct	gatgcgtttt	agaggacttg	gcataaaatg	1320
aaagattggc	aaaggccctt	gaggggcttg	gggatgacag	tatggaaactg	tctgcattgg	1380
accctaaact	ggactagaag	aggcatcttc	aaggttcata	cgttgtccag	ctgtaagttc	1440
atttgagtag	cagacctaac	aaatatttga	ggtcagaacc	ctaccatgtt	aaaacaaaaca	1500
aaaacttacc	atgttaataa	aagtattcat	ttgc			1534

<210> 378
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 378

Met	Arg	Pro	Leu	Asp	Ile	Val	Glu	Leu	Ala	Glu	Pro	Glu	Glu	Val	Glu
1				5				10						15	
Val	Leu	Glu	Pro	Glu	Glu	Asp	Phe	Glu	Gln	Phe	Leu	Leu	Pro	Val	Ile
			20					25					30		
Asn	Glu	Met	Arg	Glu	Asp	Ile	Ala	Ser	Leu	Thr	Arg	Glu	His	Gly	Arg
		35					40				45				
Ala	Tyr	Leu	Arg	Asn	Arg	Ser	Lys	Leu	Trp	Glu	Met	Asp	Asn	Met	Leu
	50					55				60					
Ile	Gln	Ile	Lys	Thr	Gln	Val	Glu	Ala	Ser	Glu	Glu	Ser	Ala	Leu	Asn
65					70				75					80	
His	Leu	Gln	Asn	Pro	Gly	Asp	Ala	Ala	Glu	Gly	Arg	Ala	Ala	Lys	Arg
			85					90						95	

Cys Glu Lys Ala Glu Glu Lys Ala Lys Glu Ile Ala Lys Met Ala Glu
100 105 110
Met Leu Val Glu Leu Val Arg Arg Ile Glu Lys Ser Glu Ser Ser
115 120 125

<210> 379
<211> 646
<212> DNA
<213> Homo sapiens

<400> 379
cgcccccccc gttccccccg cggccatgaa cgccgctcgc accggctacc gagtcttctc 60
ggccaactcc acggccgcct gcacggagct ggccaagcgc atcacagagc gccttggtgc 120
tgaattgggg aagtctgttg tatatgaaga gaccaatgga gaaacaagag ttaaaataaa 180
agaatctggt cgtggccaag atattttcat tatacagaca ataccagag atgtgaatac 240
agctgtgatg gagttgctca tcatggctta cgcaactgaag actgcctgtg ccaggaacat 300
tattgggggtc atccccctact tccccctacag caagcagagc aagatgagaa agagggggtc 360
cattgtgtgc aagctgctag catccatgct ggcgaaagca ggtttaactc acattatcac 420
tatggatctt catcaaaaagg aaatacaagg ctttttcagc tttcctgtgg acaaccttag 480
agcctcacct ttcctgcttc agtatatccg gaagaaattc caaattacag aaatgcagtc 540
attgtagcta gtctcctgat gctgcaaaga gggcccagtc ctatgctggag agactgcgtc 600
tgggtttttg ccgtcattca cggggaagct cagtgcacgg aactgg 646

<210> 380
<211> 317
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(317)
<223> n = g, a, c or t

<400> 380
ctgcccggcc ccggttcccc ctgccnggcc atgaacgccg ctctgcaccg gctaccgagt 60
cttctcggcc aactccacgg ccgcctgcac ggagctggcc aagcgcacatca cagagcgcct 120
tggtgctgaa ttgggggaagt ctgttggtata tganagagac caatggagga aaccaagagt 180
tacacanagt acaaagaant ctgttcggtg gccaaaggata ttttcattat acagacaatt 240
aaccagaga tgtgaatata gctgtgatgg agttgctcat catggcttac gcaactgaaga 300
ctgcctgtgc caggaaac 317

<210> 381
<211> 186
<212> DNA
<213> Homo sapiens

<400> 381
cgcccccccc gttccccccg cggccatgaa cgccgctcgc ccggtaccga gtcttctcgg 60
caactccacg gcgcctgacg gagctggcca agcgcataca gagcgccttg gtgctgaatt 120
ggggaagtct gttgtatatt aagagaccaa tgggaaacaa gagttaaata aaagatctgt 180
tcgtgg 186

<210> 382
<211> 712
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(712)
<223> n = g, a, c or t

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<400> 382
cgcccccccc ngtttcccc gccggccatg aacgccgctc gcacccggta ccgagttctt      60
ctcggccaac tccacggccg cctgcacgga gccttggcca agccgcatca cagagcgctt      120
tgggtgctgaa tgggggaagt ctgtggtata tgaagagacc aatggaggaa acaagagtta      180
aaataaaaaga attctgttctg tggccaagat tatttttcat ttatacagac aattaccag      240
agatgttgaa ttacagcttg ttgattggag tttgctcatt catggcttta cgccactgaa      300
gacttgccctt gttgccagga acattttattg gggtcacccc cttacttccc ctacagcaag      360
cagagcaaaag atgagaaaaga ggggttccat tgtgtgcaag ctgcttaggc aatccatgct      420
ggccgaaaaag cnggtttaac tcacattatc actatggatc ttcatacaaaa ggaaatacaa      480
gggcttttac aagcttttctt tgtggaacaa accctttaga agccttcaac ctttttctctg      540
cttcagtata tcccaggaag gaaattccaa attaccagaa atgcaggta tttggtagct      600
aagtctccct gatgccttgc caagganggg ccagtcctat tcggagaana catgcgtctg      660
gttgggccgg aantcacacg ggaaaccnca tgcacagaac tcnggacctt gg              712

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<210> 383
<211> 701
<212> DNA
<213> Homo sapiens

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```

<400> 383
cgcccccccc ggttccccgc cggccatgaa cgccgctcgc accggctacc gagtcttctc      60
ggccaactcc acggccgcct gcacggagct ggccaagcgc atcacagagc gccttgggtgc      120
tgaattggggg aagtctgttg tatatgaaga gaccaatgga gaaacaagag ttaaaataaa      180
agaatctgtt cgtggccaag atattttcat tatacagaca ataccagag atgtgaatac      240
agctgtgatg gagttgctca tcatggctta cgcactgaag actgcctgtg ccaggaacat      300
tattgggggtc atcccctact tcccctacag caagcagagc aagatgagaa agaggggttc      360
cattgtgtgc aagctgctag catccatgct ggcgaaagca ggtttaactc acattatcac      420
tatgatcttc atcaaaaagga aatacaaggc tttttcagct ttcctgtgga caaccttaga      480
gcctcacctt tcctgcttca gtatatccgg aagaaattcc aaattacaga aatgcagtca      540
ttgtagctaa cgtctcctga tgctgcaaa agggccagc cctatgcgga gagactgcgt      600
ctgggtttgg ccgtcattca cggggaagct cagtgcacgg aactggacat tggacgatgg      660
tcgtcaactc cccgctatgg tcaaaatgct actgtgcacc c              701

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<210> 384
<211> 1728
<212> DNA
<213> Homo sapiens

```

```

<400> 384
ggtgcgcaag ggcacggacc tcggagctct ccccgttccc ccgccggcca tgaacgccgc      60
tcgcaccggc taccgagctt tctcgccaa ctccacggcc gcctgcacgg agctggccaa      120
gcgcatacaca gagcgccctg gtgctgaatt ggggaagtct gttgtatata aagagaccaa      180
tgagaaaaca agagttgaaa taaaagaatt tgttcgtggc caagatattt tcattataca      240
gacaataccc agagatgtga atacagctgt gatggagttg ctcatcatgg cttacgcact      300
gaagactgcc tgtgccagga acattattgg ggtcatcccc tacttcccct acagcaagca      360
gagcaagatg aggaagaggg gttccattgt gtgcaagctg ctagcatcca tgctggcgaa      420
agcaggttta actcacatta tcatatgga tcttcatcaa aaggaaatac aaggcttttt      480
cagctttcct gtggacaacc ttagagcctc acctttcctg cttcagtata tccaggaaga      540
aattccaaat tacagaaatg cagtcattgt agctaagtct cctgatgctg caaagagggc      600
ccagtcctat gcggagagac tgcgtctggg tttggccgctc attcacgggg aagctcagtg      660
cacggaactg gacatggacg atggctgtca ctccccgcct atggtcacaaa atgctactgt      720
gcacccaggc ctggagttgc cattgatgat ggccaaagag aagccaccga taactgtagt      780
tgagatgtt ggaggccgca tcgcaatcat cgtggatgac attattgacg atgtggagag      840
ttttgttgct gccgcggaga tctgaaaaga gagaggcgcc tataagatct atgttatggc      900
caccacggc atcctgtctg cagaggcccc tcgcctgatt gaggagtctt ccgtagacga      960
ggtggtggtg acgaatactg tccctcatga ggttcagaag ctgcaatgtc ccaagataaa      1020
gactgttgat atcagtttga ttctttctga agccattcgg agaattccaca atggagagtc      1080
catggcctac cttttccgaa acatcactgt ggatgactag ctttcacgag ggtctcgacc      1140
ctggacctcc tgagggaaac atggaaaaaag cagtgccatg agtgatacag tgtttccttg      1200
caagggagga ctcgaaacag cctggagtta gatattctt tttgcccgga ttgatgggga      1260
ggagggatta aaagagtcag gaagaagaca gagctaattg ataaatatca taacatggcc      1320

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ttacatgtct gctgtcatca gccctgttcc ttaaaagtcc tagctgcttt cttaaaaata 1380
atctgaaaat cttattgata ctaaagagga gttaaaggca cataaagtct taactctata 1440
atgttcattt agttgtttca gctccagggg aatggaggta ttgatgttga acctgggttag 1500
ggaagctgag cgcctgtggc cctattacta tccagttggc ctctcccaaa tcaacttcaa 1560
gtcttttata gagaatcgta tttttctttc agaaattgct atgcctacag ccattgaaaa 1620
atgaagcatt catgttgta catcttccaa ggatgtcaga ttagaaaata gcaccccacc 1680
tctgggtatc tgagtggctc tgaagttgca aataaaataa tttgttgt 1728

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<210> 385
<211> 356
<212> PRT
<213> Homo sapiens

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<400> 385
Met Asn Ala Ala Arg Thr Gly Tyr Arg Val Phe Leu Ala Asn Ser Thr
1      5      10      15
Ala Ala Cys Thr Glu Leu Ala Lys Arg Ile Thr Glu Arg Leu Gly Ala
20     25     30
Glu Leu Gly Lys Ser Val Val Tyr Gln Glu Thr Asn Gly Glu Thr Arg
35     40     45
Val Glu Ile Lys Glu Phe Val Arg Gly Gln Asp Ile Phe Ile Ile Gln
50     55     60
Thr Ile Pro Arg Asp Val Asn Thr Ala Val Met Glu Leu Leu Ile Met
65     70     75     80
Ala Tyr Ala Leu Lys Thr Ala Cys Ala Arg Asn Ile Ile Gly Val Ile
85     90     95
Pro Tyr Phe Pro Tyr Ser Lys Gln Ser Lys Met Arg Lys Arg Gly Ser
100    105    110
Ile Val Cys Lys Leu Leu Ala Ser Met Leu Ala Lys Ala Gly Leu Thr
115    120    125
His Ile Ile Thr Met Asp Leu His Gln Lys Glu Ile Gln Gly Phe Phe
130    135    140
Ser Phe Pro Val Asp Asn Leu Arg Ala Ser Pro Phe Leu Leu Gln Tyr
145    150    155    160
Ile Gln Glu Glu Ile Pro Asn Tyr Arg Asn Ala Val Ile Val Ala Lys
165    170    175
Ser Pro Asp Ala Ala Lys Arg Ala Gln Ser Tyr Ala Glu Arg Leu Arg
180    185    190
Leu Gly Leu Ala Val Ile His Gly Glu Ala Gln Cys Thr Glu Leu Asp
195    200    205
Met Asp Asp Gly Arg His Ser Pro Pro Met Val Lys Asn Ala Thr Val
210    215    220
His Pro Gly Leu Glu Leu Pro Leu Met Met Ala Lys Glu Lys Pro Pro
225    230    235    240
Ile Thr Val Val Gly Asp Val Gly Gly Arg Ile Ala Ile Ile Val Asp
245    250    255
Asp Ile Ile Asp Asp Val Glu Ser Phe Val Ala Ala Ala Glu Ile Leu
260    265    270
Lys Glu Arg Gly Ala Tyr Lys Ile Tyr Val Met Ala Thr His Gly Ile
275    280    285
Leu Ser Ala Glu Ala Pro Arg Leu Ile Glu Glu Ser Ser Val Asp Glu
290    295    300
Val Val Val Thr Asn Thr Val Pro His Glu Val Gln Lys Leu Gln Cys
305    310    315    320
Pro Lys Ile Lys Thr Val Asp Ile Ser Leu Ile Leu Ser Glu Ala Ile
325    330    335
Arg Arg Ile His Asn Gly Glu Ser Met Ala Tyr Leu Phe Arg Asn Ile
340    345    350
Thr Val Asp Asp
355

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<210> 386
 <211> 413
 <212> DNA
 <213> Homo sapiens

<400> 386
 gtgcgtacca tgcagaatac cagcgacctg gacacagccc gctgcaccac cagcatcctg 60
 cacaacctct cccaccaccg ggaggggctg ctcgccatct tcaagtcggg tggcatccct 120
 tctctgggtcc gcatgctcag ctcccccttt gagtcgggtc tgttctatgc catcaccacg 180
 ctgcacaacc tgctcctgta ccaggagggc gccaaagtgg cgtgcgccct ggccgacggg 240
 ctgcaaaaga tgggtgcccc gctcaacaag aacaacccca agttcctggc catcaccacc 300
 gactgcctgc agtcctggc ctacggcaac caggagagca agctgatcat cctggccaat 360
 ggtgggcccc agggccctcg gtgcacgatt atgcgttact tcgtttttaa agc 413

<210> 387
 <211> 428
 <212> DNA
 <213> Homo sapiens

<400> 387
 ccagtgtgt cgtgcgtac catgcagaat accagcgacc tggacacagc ccgctgcacc 60
 accagcatcc tgcacaacct ctcccaccac cgggaggggc tgctcgccat cttcaagtgc 120
 ggtggcatcc ctgctctggt ccgcatgctc agctccccct ttgagtcggg cctgtttcta 180
 tgccatcacc acgctgcaca acctgctcct gtaccaggag ggcgccaaga tggcctgctg 240
 cctggccgac gggctgcaaa agatggtgcc cctgctcaac aagaacaacc ccagttcctg 300
 gccatcacca ccgactgcct gcagctcctg gcctacggca accaggagag caagctgatc 360
 atcctggcca atggtgggccc ccaggccctc gtgcagatca tgcgtaacta cgttattaaa 420
 agtgctc 428

<210> 388
 <211> 609
 <212> DNA
 <213> Homo sapiens

<400> 388
 tccagtgtgt tcgtgcgtac catgcagaat accagcgacc tggacacagc ccgctgcacc 60
 accagcatcc tgcacaacct ctcccaccac cgggaggggc tgctcgccat cttcaagtgc 120
 ggtggcatcc ctgctctggt ccgcatgctc agctccccct gtggagtctg tctgtttcta 180
 tgccatcacc acgctgcaca acctgctcct gtaccaggag ggcgccaaga tggcctgctg 240
 cctggccgac gggctgcaaa agatggtgcc cctgctcaac aagaacaacc ccaagttcct 300
 ggccatcacc accgactgcc tgcagctcct ggccctacggc aaccaggaga gcaagctgat 360
 catcctggcc aatggtgggc ccaggccctc cgtgcagatc atgcgtaact acgttatgaa 420
 aagctgtctt ggaccaccag tcgtgtgctc aaggtgctat ccgtgtgtcc cagcaataag 480
 cctgccattg tggaggctgg tgggatgcag gccctgggca agcacctgac cagcaacagc 540
 cccgcctgg tgcagaactg cctgtggacc ctgcgcaacc tctcagattt ggccaccagg 600
 caggagggc 609

<210> 389
 <211> 587
 <212> DNA
 <213> Homo sapiens

<400> 389
 ccagtgtgt cgtgcgtacc atgcagaata ccagcgacct ggacacagcc cgtgcacca 60
 ccagcatcct gcacaacctc tcccaccacc gggaggggct gctcgccatc ttcaagtcgg 120
 gtggcatccc tgctctggtc cgcattgctc gctccccctg gggagtcggg cctgtttctat 180
 gccatcacca cgctgcacaa cctgctcctg taccaggagg gcgccaagat ggccgtgcgc 240
 ctggccgacg ggctgcaaaa gatggtgccc ctgctcaaca agaacaacc caagttcctg 300
 gccatcacca ccgactgcct gcagctcctg gcctacggca accaggagag caagctgatc 360
 atcctggcca atggtgggccc ccaggccctc gtgcagatca tgcgtaacta cagttatgaa 420
 aagctgtctt ggaccaccag tcgtgtgctc aaggtgctat ccgtgtgtcc cagcaataag 480

cctgccattg	tggaggctgg	tgggatgcag	gccctgggca	agcacctgac	cagcaacagc	540
ccccgcctgg	tcgagaactg	cctgtggacc	ctgcgcaacc	tctcaga		587

<210> 390
 <211> 631
 <212> DNA
 <213> Homo sapiens

<400> 390						
tgctgtcgtg	cgtaccatgc	agaataccag	cgacctggac	acagcccgt	gcaccaccag	60
catcctgcac	aacctctccc	accaccggga	ggggctgtct	gccatcttca	agtcgggtgg	120
catccctgct	ctggtcgcga	tgctcagctc	cccttggagt	cggctcctgtt	ctatgccatc	180
accacgtgc	acaacctgct	cctgtaccag	gagggcgcca	agatggccgt	gcgcctggcc	240
gacgggctgc	aaaagatggg	gcccctgtct	aacaagaaca	acccaagt	cctggccatc	300
accaccgact	gcctgcagct	cctggcctac	ggcaaccagg	agagcaagct	gatcatcctg	360
gccaatggtg	ggccccaggc	cctcgtgcag	atcatgcgta	actacagtta	tgaaaagctg	420
ctctggacca	ccagtcgtgt	gctcaagggtg	ctatccgtgt	gtcccagcaa	taagcctgcc	480
attgtggagg	ctggtgggat	gcaggccctg	ggcaagcacc	taccagcaac	agcccccgcc	540
tggtgcagaa	ctgcctgtgg	accctgcgca	acctctcaga	tttggccacc	aggcaggagg	600
gcctggagag	tgtgctgaaa	gattctggtg	a			631

<210> 391
 <211> 475
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(475)
 <223> n = g, a, c or t

<400> 391						
agcttttttat	aactgtagtt	acgcatgata	tgacagaggg	cctggggccc	accattggcc	60
aggatgatca	gcttgctctc	ctggttgccg	tagccagagc	tgacagagtc	gtgtatgccca	120
gaacttgggg	ttgttcttgt	tgagcagggg	caccatcttt	tgacagccgt	cgccaggcgc	180
acggccatct	tggcgccctc	ctggtacagg	agcaggttgt	gcagcgtggg	gatgcataga	240
acaggaccga	ctccacangg	gagctgagca	tgccgaccag	agcaggatgc	caccacttg	300
aaatgcagca	gcccctcccc	gtgtggagag	gttgtgcagg	atgctgtggg	gcagcgggct	360
gtgtccagtc	gctgtattct	gcatggtacg	cacgacgcgc	caccactggg	cgagcccatc	420
agggcccgc	gcgaccctcc	ttttcgacgc	tgttcacaat	catgcccctt	gtcac	475

<210> 392
 <211> 648
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(648)
 <223> n = g, a, c or t

<400> 392						
gagaggcgcc	atngncgggtg	gcagcgggtg	ctccagtgtc	gtcgtgcgta	ccatgcagaa	60
taccagcgac	ctggacacag	cccgtgtcac	caccagcatc	ctgcacaacc	tctccacca	120
ccgggagggg	ctgctcgcca	tcttcaagtc	gggtggcatc	cctgnctctg	gtccgcagtc	180
tcagctcccc	tgntggagtc	ggtcctgttc	tatgccatca	ccacgtgca	caacctgtct	240
ctgtaccagg	agggcgccaa	gatggccgtg	cgctggccg	acgggctgca	aaagatgggtg	300
ccctgtctca	acaagaacaa	ccccaagttc	ctggccatca	ccaccgactg	cctgcagctc	360
ctggcctacg	gcaaccaggga	gagcaagctg	atcatcctgg	ccaatgggtg	gccccaggcc	420
ctcgtgcaga	tcatgcgtaa	ctacagttat	gaaaagctgc	tctggaccac	cagtcgtgtg	480
ctcaagggtg	tatccgtgtg	tcccagcaat	aagcctgccca	ttgtggaggc	tggtgggatg	540

caggccctgg	gcaagcacct	gaccagcaac	agcccccgcc	tgggtgcagaa	ctgcctgtgg	600
accctgcgca	acctctcaga	tgtggccacc	aggcaggagg	gcctggag		648

<210> 393
 <211> 954
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(954)
 <223> n = g, a, c or t

<400> 393						
gncggtggca	gcggtggctc	cagtgtgtgc	gtgcgtacca	tgcagaatac	cagcgacctg	60
gacacagccc	gctgcaccac	cagcatcctg	cacaacctcc	cccaccaccg	ggaggggctg	120
ctcgccatct	tcaagtctgg	tggcatccct	gctctggtcc	gcattgctcag	ctcccctgnt	180
ggagtctgtc	ctgtttctatg	ccatcaccac	gctgcacaa	ctgctcctgt	accaggaggg	240
cgccaagatg	gccgtgcgcc	tggccgacgg	gctgcaaaag	atgggtgccc	tgtctcaacaa	300
gaacaacccc	aagtctcctg	ccatcaccac	cgactgcctg	cagctcctgg	cctacggcaa	360
ccaggagagc	aagtctgatca	tcctggccaa	tgggtgggccc	caggccctcg	tgcagatcat	420
gcgttaactac	agttatgaaa	agctgctctg	gaccaccagt	cgtgtgctca	aggtgctatc	480
cgtgtgtccc	agcaataagc	ctgccattgt	ggaggctggg	gggatgcagg	ccctgggcaa	540
gcacctgacc	agcaacagcc	ccgcctggg	gcagaactgc	ctgtggaccc	tgcgcaacct	600
ctcagatgtg	gccaccaagc	aggagggcct	ggagagtgtg	ctgaagattc	tgggtgaatca	660
gctgagtgtg	gatgacgtca	acgtcctcac	ctgtgccacg	ggcacactct	ccaacctgac	720
atgcaacaac	agcaagaaca	agacgtggg	gacacagaac	agcgggtgtg	aggctctcat	780
ccatgccatc	ctgcgtgctg	gtgacaagga	cgacatcacg	gagcctgccg	tctgcgctct	840
gcgccacctc	actagccgnc	accctgagg	cgagaacggc	ctggccccag	taacggggccc	900
ctctntgcag	gctttcctcc	tctctagaan	ctccttctgt	tgggaaggccc	tccg	954

<210> 394
 <211> 926
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(926)
 <223> n = g, a, c or t

<400> 394						
gagaggcgcc	atngncggtg	gcagcgggtg	ctccagtgtc	gtcgtgcgta	ccatgcagaa	60
taccagcgac	ctggacacag	cccgtgcac	caccagcatc	ctgcacaacc	tctcccacca	120
ccgggagggg	ctgctcgcca	tcttcaagtc	gggtggcatc	cctgctctgg	tccgcatgct	180
cagctcccc	gatggagtcg	gtcctgttct	atgccatcac	cacgctgcac	aacctgtctc	240
tgtaccagga	gggcgccaag	atggccgtgc	gcctggccga	cgggctgcaa	aagatggtgc	300
ccctgtcaa	caagaacaac	cccaagtctc	tggccatcac	caccgactgc	ctgcagctcc	360
tggcctacgg	caaccaggag	agcaagctga	tcattctggc	caatgggtggg	ccccaggccc	420
tcgtgcagat	catgcgtaac	tacagttatg	aaaagctgct	ctggaccacc	agtcgtgtgc	480
tcaagggtgct	atccgtgtgt	cccagcaata	agcctgccat	tgtggaggct	ggtgggatgc	540
aggccctggg	caagcacctg	accagcaaca	gccccgcct	ggtgcagaa	tgcctgtgga	600
ccctgcgcaa	cctctcagat	gtggccacca	agcaggaggg	cctggagagt	gtgctgaaga	660
ttctggtgaa	tcagctgagt	gtggatgacg	tcaacgtcct	cacctgtgcc	acgggcacac	720
tctccaacct	gacatgcaac	aacagcaaga	acaagacgct	ggtgacacag	aacagcgggtg	780
tggaggctct	catccatgcc	atcctgcgtg	ctggtgacaa	ggacgacatc	acggagcctg	840
ccgtctgcgc	tctgngccan	ctcattagcc	gccaccctga	gggcgagatg	gnccagaact	900
ctgtgcgtcn	caactatggc	atccca				926

<210> 395
 <211> 536
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(536)
 <223> n = g, a, c or t

```

<400> 395
tgggtgggtcca gagcagcttt ttataactgt agttacgcat gatctgcacg agggcctggg      60
gcccaccattt ggccaggatg atcagcttgc tctcctgggt gccgtaggcc aggagctgna      120
ggcagtcgggt ggtgatggcc angaacttgg ggttgtnctt gttgagcagg ggcaccatct      180
tttgacagccc gtcgggccagg cgcacggcca tcttggcgcc ctcttggtac aggagcagggt      240
tgtgcagcgt ggtgatggca tagaacagga ccgactccac aggggagctg atcatgaggga      300
ccagagcagg gatgccaccc gacttgaaga tggcgagcag cccctcccgg tgggtgggaga      360
ggttgatgcag gatgctgggt gtgcagcggg ctgtgtccag gtcgctggta ttctgcatgg      420
tacgcacgac agcggccacc agctggggcg agcccatcan ggcccgnccg gacgcctcct      480
tggttcgacag ctggtccaca atcatggccg ncttggtcac caccaccggg tcctcg      536
  
```

<210> 396
 <211> 910
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(910)
 <223> n = g, a, c or t

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<400> 396
cggnccgacc ccgacccggc ccggtcaggc cccataactca gtagccacga tggaggtgat      60
gaacctgatg gagcagccta tcaaggtagc tgantggcag cagacataca cctacgactc      120
gggtatccac tcgggcgcca acacctgcgt gccctccgnc agcagcaagg gcatcatgga      180
ggaggatgag gcctgcgggc gccagtacac gctcaagaaa accaccactt acaccagggt      240
ggtgcccccc agccaagggt acctggagta ccagatgtcc acaacagcca gggccaaacg      300
ggtgcggggag gccatgtgcc ctggtgtgtc aggcgaggac agctcgcttc tgctggccac      360
ccagggtggag gggcaggcca ccaacctgca gcgactggcc gagccgtccc agctgctcaa      420
gtcggccatt gtgcatctca tcaactacca ggacgatgcc gagctggcca ctgcgcacct      480
gcccagagtc accaaactgc tcaacgacga ggaccgggtg gtggtgacca aggcggncat      540
gattgtgaac cagctgtcga acaaggaggc gtcgcggcgg gccctgatgg gctcgcccca      600
gctggtggcc gctgtcgtgc gtaccatgca gaataccagc gacctggaca cagcccgtcg      660
caccaccagc atcctgcaca acctctccca ccaccgggag gggctgctcg ccatcttcaa      720
gtcgggtggn atccctgtc tggtccgcat gctcagctcc ctgtggagtc ggtcctgttc      780
tatgccatca ccacctgnac aacctgtctc tgtaccagga ggggcgccaa natggccgtg      840
cgcttgggcg acggnatggaa aanatgtgcc ctgctcaaca gaacacccca agttctggca      900
tcacacgaat                                     910
  
```

<210> 397
 <211> 533
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(533)
 <223> n = g, a, c or t

```

<400> 397
nggtgggtcca gancagcttt ttataactgt agttacgcat gatctgcacn agggcctggg      60
  
```

gcccaccata	tggccaggat	gatcagcttg	ctctcctggt	tgccgtaggc	caggagctgc	120
aggcagtcgg	tggatgatggc	caggaacttg	gggttggtct	tgttgagcag	gggcaccatc	180
ttttgcagcc	cgtcggccag	gcgcacggcc	atcttggcgc	cctcctggta	caggagcagg	240
ttgtgcagcg	tggatgatggc	atagaacagg	accgactcca	caggggagct	gagcatgcgg	300
accagagcag	ggatgccacc	cgacttgaan	atggcgagca	gccccctccg	gtgggtgggag	360
aggttgatgca	ggatgctggt	ggtgcagcgg	gctgtgtcca	ggtcgtctgt	attctgcatg	420
gtacgcacga	cagcggccac	cagctggggc	gagcccatca	gggncccgc	gcgacgcctc	480
cttggttcgac	agctggttca	caatcatggc	cgccttggtc	accaccaccg	ggt	533

<210> 398

<211> 883

<212> DNA

<213> Homo sapiens

<400> 398

tggatggtcca	gagcagcttt	ttataactgt	agttacgcat	gatctgcacg	agggcctggg	60
gcccaccatt	ggccaggatg	atcagcttgc	tctcctgggt	gccgtaggcc	aggagctgca	120
ggcagtcggt	ggtgatggcc	aggaacttgg	ggttggttct	ggtgagcagg	ggcaccatct	180
tttgacagccc	gtcggccagg	cgcacggcca	tcttggcgc	ctcctggtag	aggagcaggt	240
tgtgcagcgt	ggtgatggca	tagaacagga	ccgactccac	aggggagctg	agcatgcgga	300
ccagagcagg	gatgccaccc	gacttgaaga	tggcgagcag	ccccctcccg	tggatgggaga	360
ggttgatgag	gatgctgggt	gtgcagcggg	ctgtgtccag	gtcgtctggt	ttctgcatgg	420
tacgcacgac	agcggccacc	agctggggcg	agcccatcag	ggcccgcgc	gacgcctcct	480
tgttcgacag	ctgggttcaca	atcatggccg	ccttggtcac	caccaccggg	tcctcgtcgt	540
tgagcagttt	ggtgagctcg	ggcagggcgc	gagtggccag	ctcggcatcg	tcctggtagt	600
tgatgagatg	cacaatggcc	gacttgagca	gctgggacgg	ctcggccagt	cgctgcaggt	660
tggatggcctg	ccccctccacc	tgggtggcca	gcagaagcga	gctgtcctcg	cctgacacac	720
cagggcacat	ggcctcccg	acccgttttg	ccctggctgt	tgtggacatc	tggtactcca	780
ggtcaccttg	gcttgggggg	caccccttgg	gtgtaagtgg	tggttttctt	gagcgtgtac	840
tggcgcccg	aggcctcatc	ctcctccatg	atgcccttgc	tgc		883

<210> 399

<211> 773

<212> DNA

<213> Homo sapiens

<400> 399

tggatggtcca	gagcagcttt	ttataactgt	agttacgcat	gatctgcacg	agggcctggg	60
gcccaccatt	ggccaggatg	atcagcttgc	tctcctgggt	gccgtaggcc	aggagctgca	120
ggcagtcggt	ggtgatggcc	aggaacttgg	ggttggttct	ggtgagcagg	ggcaccatct	180
tttgacagccc	gtcggccagg	cgcacggcca	tcttggcgc	ctcctggtag	aggagcaggt	240
tgtgcagcgt	ggtgatggca	tagaacagga	ccgactccac	aggggagctg	agcatgcgga	300
ccagagcagg	gatgccaccc	gacttgaaga	tggcgagcag	ccccctcccg	tggatgggaga	360
ggttgatgag	gatgctgggt	gtgcagcggg	ctgtgtccag	gtcgtctggt	ttctgcatgg	420
tacgcacgac	agcggccacc	agctggggcg	agcccatcag	ggcccgcgc	gacgcctcct	480
tgttcgacag	ctgggttcaca	atcatggccg	ccttggtcac	caccaccggg	tcctcgtcgt	540
tgagcagttt	ggtgagctcg	ggcagggcgc	gagtggccag	ctcggcatcg	tcctggtagt	600
tgatgagatg	cacaatggcc	gacttgagca	gctgggacgg	ctcggccagt	cgctgcaggt	660
tggatggcctg	ccccctccacc	tgggtggcca	gcagaagcga	gctgtcctcg	cctgacacac	720
cagggcacat	ggcctcccg	acccgttttg	ccctggctgt	tgtggacatc	tgg	773

<210> 400

<211> 618

<212> DNA

<213> Homo sapiens

<400> 400

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gcccaccatt	ggccaggatg	atcagcttgc	tctcctgggt	gccgtaggcc	aggagctgca	120
ggcagtcggt	ggtgatggcc	aggaacttgg	ggttggttct	ggtgagcagg	ggcaccatct	180
tttgacagccc	gtcggccagg	cgcacggcca	tcttggcgc	ctcctggtag	aggagcaggt	240

tgtgcagcgt	ggtgatggca	tagaacagga	ccgactccac	aggggagctg	agcatgcgga	300
ccagagcagg	gatgccaccc	gacttgaaga	tggcgagcag	ccccccccg	tggtgggaga	360
ggttgtgcag	gatgctgggt	gtgcagcggg	ctgtgtccag	gtcgctggta	ttctgcatgg	420
tacgcacgac	agcggccacc	agctggggcg	agcccatcag	ggcccgcgc	gacgccctcc	480
ttgttcgaca	gctgggtcac	aatcatggcc	gcctttggtc	accaccaccg	ggtcctcgtc	540
gttgagcagt	ttggttaagc	tcgggcaggg	cgcgagtggc	cagctcggca	tcgtcctggt	600
agttgatgag	atgcacaa					618

<210> 401

<211> 750

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(750)

<223> n = g, a, c or t

<400> 401

cangagagca	agctgatcat	cctggccaat	ggtgggcccc	aggccctcgt	gcagatcatg	60
cgtaactaca	gttatgaaaa	gctgctctgg	accaccagtc	gtgtgctcaa	ggtgctatcc	120
gtgtgtccca	gcaataagcc	tgccattgtg	gaggctgggt	ggatgcaggc	cctgggcaag	180
cacctgacca	gcaacagccc	ccgacctggg	gcagaactgc	ctgtggacct	tgcgcaacct	240
ctcagatgtg	gccaccaggc	aggaggccct	ggagagtgtg	ctgaagattc	tggtgaatca	300
gctgagtgtg	gatgacgtca	acgtcctcac	ctgtgccacg	ggcacactct	ccaacctgac	360
atgcaacaac	agcaagaaca	agacgctggg	gacacagaac	agcgggtgtg	aggctctcat	420
ccatgccatc	ctgctgtgct	gtgacaagga	cgacatcacg	gagcctgccg	tctgcgtctt	480
gcgccacctc	actagccgcc	accctgaggc	cgagatggcc	cagaactctg	tgctgtctca	540
ctatggcatc	ccagccatcg	tgaagctgct	caaccagccc	aaccagtggc	cactgggtcaa	600
ggcaaccatc	ggcttgatca	ggaatctggc	cctgtgcccc	agcccaacca	tgccccgctg	660
caggaggcag	nggtcatccc	cgctcgtcc	aactgctggt	gaangcccac	caggatgccc	720
agngccacgt	anctgcaggc	ncaccgcagc				750

<210> 402

<211> 858

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(858)

<223> n = g, a, c or t

<400> 402

ccctgnataa	tacnttagtg	tggatgacgt	caangtcctc	nnetgctgcc	acggggacac	60
tctccaacct	gacatgcaac	aacagcaaga	acaagacgct	ggtgacacag	aacagcgggt	120
tggaggctct	catccatgcc	atcctgcgat	gctggtgaca	aggacgacat	cacggagcct	180
gcggtctgcg	ctctgcgcca	cctcactagc	cgccaccctg	aggccgagat	ggcccagaac	240
tctgtgcgtc	tcaactatgg	catcccagcc	atcgtgaagc	tgctcaacca	gcccaccag	300
tggccactgg	tcaaggcaac	catcggttg	atcaggaatc	tggccctgtg	cccagccaac	360
catgccccgc	tgcaggaggc	agcggtcatc	ccccgcctcg	tccaactgct	ggtgaaggcc	420
caccaggatg	cccagcgcca	cgtagctgca	ggcacacagc	agccctacac	ggatgggtgtg	480
aggatggagg	agattgtgga	gggctgcacc	ggagcactgc	acatcctcgc	ccgggacccc	540
atgaaccgca	tggagatctt	ccggtcaac	accattcccc	tgtttgtgca	gtcctgttac	600
tcgtcggtgg	agaacatcca	gcgcgtggct	gccgggggtg	tgtgtgagct	ggcccaggac	660
aaggaggcgg	tcgacgccat	tgatgcagan	ggggcctcgg	ccccactcat	ggagttgctg	720
cactccccga	acgagggcac	tgccacctac	gctgctgccc	gtcctgttcc	gcatctccga	780
ngacaanaac	ccagactacc	ggaancgcgt	gtccgtggag	ctcaccaact	cccttcttca	840
ngcatgaacc	cggctgcc					858

<210> 403
 <211> 935
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(935)
 <223> n = g, a, c or t

```

<400> 403
gcacactgna ctgactcnggt atctggcccn ntgcccagcc aaccatgccc cgctgcagga      60
ggcagcggat catcccccgc ctgctcccaa ctgctgggtga aggccacca ggatgccag      120
cgccacgcta gctgcaggca cacagcagcc ctacacggat ggtgtgagga tggaggagat      180
tgtggagggc tgcaccggag cactgcacat cctcgcccg gaccccatga accgcatgga      240
gatcttccgg ctcaacacca ttccctgnt ttgtgcagct cctgtactcg tcggtggaga      300
acatccagcg cgtggctgcc ggggtgctgt gtgagctggc ccaggacaag gaggcggccg      360
acgccattga tgcagagggg gcctcggccc cactcatgga gttgctgcac tcccgcaacg      420
agggcactgc cacctacgct gctgccgtcc tgttcgcgat ctccgaggac aagaacccag      480
actaccggaa gcgcgtgtcc gtggagctca ccaactccct cttcaagcat gacccggctg      540
cctgggaggc tgcccagagc atgattccca tcaatgagcc ctatggagat gactnggatg      600
ccacctaccg ccccatgtac tccagcgatg tgccccttga acccgctgga gatgcacatg      660
gacatggatg gagactaccc catcgacacc tacagngang gccctaggcc cccgtacccc      720
actgnagacc acatgctggn ctacgcggcc tggccccagt acggnccctt ctttgcaggc      780
ttttcctcct ctctagaaac ctcttctgt tggaggccct cncaaaaacc ancagnacaa      840
cccaccacag nggttacata gataaagcgn ccgntcgact antctgaggt ctgataactca      900
ctgactgtcn tacacagtga acctataaan taaaa                                     935

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<210> 404
 <211> 514
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(514)
 <223> n = g, a, c or t

```

<400> 404
aacctntga atgncgacc tttgtgtgag ctggcccagg acaaggcagg cggccgacgc      60
cattgatgca nagggggcct cggcccccact catggagttg ctgcactccc gcaacgaggg      120
cactgccacc tacgctgctg ccgtcctgtt ccgcctctcc gaggacaaga acccagacta      180
ccggaagcgc gtgtccgtgg agctcaccaa ctccctcttc aagcatgacc cggctgcctg      240
ggaggctgcc cagagcatga ttcccatcaa tgagccctat ggagatgact tggatgccac      300
ctaccgcccc atgtactcca gcgatgtgcc ccttgacccg ctggagatgc acatggacat      360
ggatggagac taccatcatg acacctacag cgacggcctc agggccccgt accccactgc      420
agaccacatg ctggcctagg cggcctggcc ccagtagggc cccctctttg caggcttttc      480
ctcctctcta gaacctcctt ctgttgaggg ccct                                     514

```

<210> 405
 <211> 256
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(256)
 <223> n = g, a, c or t

```

<400> 405
agggcctcca acagaaggag gttctagaga ggaggaaaag cctgcaaaga gggggccgta      60

```


ctggggccag	gccgcctagg	ccancatgtg	gtctgcagtg	gggtacgggg	gcctgaggcc	120
gtcgctgtag	gtgtcgatgg	ggtagtctcc	atccatgtcc	atgtgcatct	ccagnnggtc	180
aaggggcaca	tcgctggagt	acatggggcg	gtaggtggca	tccaagtcac	ctccataggg	240
ctcattgatg	ggaatc					256

<210> 406

<211> 3490

<212> DNA

<213> Homo sapiens

<400> 406

cgccagagtc	cggagcagcc	gccgcccagc	cgcgcgcgagc	tcagttcgct	gtccgcgcgcg	60
gctcccaccc	cggcccagcc	ccgacccggc	ccggtcaggc	cccatactca	gtagccacga	120
tggagggtgat	gaacctgatg	gagcagccta	tcaagggtgac	tgagtggcag	cagacataca	180
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gggcaaaacg	ggtgcgggag	gccatgtgcc	ctgggtgtgtc	aggcgaggac	agctcgcttc	420
tgctggccac	ccagggtggag	gggcaggcca	ccaacctgca	gcgactggcc	gagccgtccc	480
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tggccactaa	agcttcagac	tcaagtaccc	attctgtttt	ccccagcaa	cgccctccca	2940
aacctccagc	ctccctgtct	ccagctgcct	gggcccggaa	gggctttggt	tccttctctg	3000

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gggtctgattt tctcactgaa ctccaccgac caactgccct aagccccccag ggcctccagg 3060
gcccagggttc gagacccaaa ccccaaaaat ccaaaaacttc tcttgaaaag ttcaggggacc 3120
gtccaggggga gatgggggagg agatatggag tgagtcacct gctccagaag atgccagctt 3180
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cagcttcctc acaccctgt cccaccaca cagctgccct agctgacccc gagaagtgct 3300
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aataacacag 3490

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<210> 407
<211> 745
<212> PRT
<213> Homo sapiens

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<400> 407
Met Glu Val Met Asn Leu Met Glu Gln Pro Ile Lys Val Thr Glu Trp
1 5 10 15
Gln Gln Thr Tyr Thr Tyr Asp Ser Gly Ile His Ser Gly Ala Asn Thr
20 25 30
Cys Val Pro Ser Val Ser Ser Lys Gly Ile Met Glu Glu Asp Glu Ala
35 40 45
Cys Gly Arg Gln Tyr Thr Leu Lys Lys Thr Thr Thr Tyr Thr Gln Gly
50 55 60
Val Pro Pro Ser Gln Gly Asp Leu Glu Tyr Gln Met Ser Thr Thr Ala
65 70 75 80
Arg Ala Lys Arg Val Arg Glu Ala Met Cys Pro Gly Val Ser Gly Glu
85 90 95
Asp Ser Ser Leu Leu Leu Ala Thr Gln Val Glu Gly Gln Ala Thr Asn
100 105 110
Leu Gln Arg Leu Ala Glu Pro Ser Gln Leu Leu Lys Ser Ala Ile Val
115 120 125
His Leu Ile Asn Tyr Gln Asp Asp Ala Glu Leu Ala Thr Arg Ala Leu
130 135 140
Pro Glu Leu Thr Lys Leu Leu Asn Asp Glu Asp Pro Val Val Val Thr
145 150 155 160
Lys Ala Ala Met Ile Val Asn Gln Leu Ser Lys Lys Glu Ala Ser Arg
165 170 175
Arg Ala Leu Met Gly Ser Pro Gln Leu Val Ala Ala Val Val Arg Thr
180 185 190
Met Gln Asn Thr Ser Asp Leu Asp Thr Ala Arg Cys Thr Thr Ser Ile
195 200 205
Leu His Asn Leu Ser His His Arg Glu Gly Leu Leu Ala Ile Phe Lys
210 215 220
Ser Gly Gly Ile Pro Ala Leu Val Arg Met Leu Ser Ser Pro Val Glu
225 230 235 240
Ser Val Leu Phe Tyr Ala Ile Thr Thr Leu His Asn Leu Leu Leu Tyr
245 250 255
Gln Glu Gly Ala Lys Met Ala Val Arg Leu Ala Asp Gly Leu Gln Lys
260 265 270
Met Val Pro Leu Leu Asn Lys Asn Asn Pro Lys Phe Leu Ala Ile Thr
275 280 285
Thr Asp Cys Leu Gln Leu Leu Ala Tyr Gly Asn Gln Glu Ser Lys Leu
290 295 300
Ile Ile Leu Ala Asn Gly Gly Pro Gln Ala Leu Val Gln Ile Met Arg
305 310 315 320
Asn Tyr Ser Tyr Glu Lys Leu Leu Trp Thr Thr Ser Arg Val Leu Lys
325 330 335
Val Leu Ser Val Cys Pro Ser Asn Lys Pro Ala Ile Val Glu Ala Gly
340 345 350

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Gly	Met	Gln	Ala	Leu	Gly	Lys	His	Leu	Thr	Ser	Asn	Ser	Pro	Arg	Leu
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Phe	Lys	His	Asp	Pro	Ala	Ala	Trp	Glu	Ala	Ala	Gln	Ser	Met	Ile	Pro
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Tyr	Ser	Ser	Asp	Val	Pro	Leu	Asp	Pro	Leu	Glu	Met	His	Met	Asp	Met
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 <212> DNA
 <213> Homo sapiens

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<211> 745

<212> PRT

<213> Homo sapiens

<400> 409

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			20					25					30		

Cys	Val	Pro	Ser	Val	Ser	Ser	Lys	Gly	Ile	Met	Glu	Glu	Asp	Glu	Ala	35	40	45
Cys	Gly	Arg	Gln	Tyr	Thr	Leu	Lys	Lys	Thr	Thr	Thr	Tyr	Thr	Gln	Gly	50	55	60
Val	Pro	Pro	Ser	Gln	Gly	Asp	Leu	Glu	Tyr	Gln	Met	Ser	Thr	Thr	Ala	65	70	75
Arg	Ala	Lys	Arg	Val	Arg	Glu	Ala	Met	Cys	Pro	Gly	Val	Ser	Gly	Glu	85	90	95
Asp	Ser	Ser	Leu	Leu	Leu	Ala	Thr	Gln	Val	Glu	Gly	Gln	Ala	Thr	Asn	100	105	110
Leu	Gln	Arg	Leu	Ala	Glu	Pro	Ser	Gln	Leu	Leu	Lys	Ser	Ala	Ile	Val	115	120	125
His	Leu	Ile	Asn	Tyr	Gln	Asp	Ala	Glu	Leu	Ala	Thr	Arg	Ala	Leu		130	135	140
Pro	Glu	Leu	Thr	Lys	Leu	Leu	Asn	Asp	Glu	Asp	Pro	Val	Val	Val	Thr	145	150	155
Lys	Ala	Ala	Met	Ile	Val	Asn	Gln	Leu	Ser	Lys	Lys	Glu	Ala	Ser	Arg	165	170	175
Arg	Ala	Leu	Met	Gly	Ser	Pro	Gln	Leu	Val	Ala	Ala	Val	Val	Arg	Thr	180	185	190
Met	Gln	Asn	Thr	Ser	Asp	Leu	Asp	Thr	Ala	Arg	Cys	Thr	Thr	Ser	Ile	195	200	205
Leu	His	Asn	Leu	Ser	His	His	Arg	Glu	Gly	Leu	Leu	Ala	Ile	Phe	Lys	210	215	220
Ser	Gly	Gly	Ile	Pro	Ala	Leu	Val	Arg	Met	Leu	Ser	Ser	Pro	Val	Glu	225	230	235
Ser	Val	Leu	Phe	Tyr	Ala	Ile	Thr	Thr	Leu	His	Asn	Leu	Leu	Leu	Tyr	245	250	255
Gln	Glu	Gly	Ala	Lys	Met	Ala	Val	Arg	Leu	Ala	Asp	Gly	Leu	Gln	Lys	260	265	270
Met	Val	Pro	Leu	Leu	Asn	Lys	Asn	Asn	Pro	Lys	Phe	Leu	Ala	Ile	Thr	275	280	285
Thr	Asp	Cys	Leu	Gln	Leu	Leu	Ala	Tyr	Gly	Asn	Gln	Glu	Ser	Lys	Leu	290	295	300
Ile	Ile	Leu	Ala	Asn	Gly	Gly	Pro	Gln	Ala	Leu	Val	Gln	Ile	Met	Arg	305	310	315
Asn	Tyr	Ser	Tyr	Glu	Lys	Leu	Leu	Trp	Thr	Thr	Ser	Arg	Val	Leu	Lys	325	330	335
Val	Leu	Ser	Val	Cys	Pro	Ser	Asn	Lys	Pro	Ala	Ile	Val	Glu	Ala	Gly	340	345	350
Gly	Met	Gln	Ala	Leu	Gly	Lys	His	Leu	Thr	Ser	Asn	Ser	Pro	Arg	Leu	355	360	365
Val	Gln	Asn	Cys	Leu	Trp	Thr	Leu	Arg	Asn	Leu	Ser	Asp	Val	Ala	Thr	370	375	380
Lys	Gln	Glu	Gly	Leu	Glu	Ser	Val	Leu	Lys	Ile	Leu	Val	Asn	Gln	Leu	385	390	395
Ser	Val	Asp	Asp	Val	Asn	Val	Leu	Thr	Cys	Ala	Thr	Gly	Thr	Leu	Ser	405	410	415
Asn	Leu	Thr	Cys	Asn	Asn	Ser	Lys	Asn	Lys	Thr	Leu	Val	Thr	Gln	Asn	420	425	430
Ser	Gly	Val	Glu	Ala	Leu	Ile	His	Ala	Ile	Leu	Arg	Ala	Gly	Asp	Lys	435	440	445
Asp	Asp	Ile	Thr	Glu	Pro	Ala	Val	Cys	Ala	Leu	Arg	His	Leu	Thr	Ser	450	455	460
Arg	His	Pro	Glu	Ala	Glu	Met	Ala	Gln	Asn	Ser	Val	Arg	Leu	Asn	Tyr	465	470	475
Gly	Ile	Pro	Ala	Ile	Val	Lys	Leu	Leu	Asn	Gln	Pro	Asn	Gln	Trp	Pro	485	490	495
Leu	Val	Lys	Ala	Thr	Ile	Gly	Leu	Ile	Arg	Asn	Leu	Ala	Leu	Cys	Pro	500	505	510

Ala Asn His Ala Pro Leu Gln Glu Ala Ala Val Ile Pro Arg Leu Val
515 520 525
Gln Leu Leu Val Lys Ala His Gln Asp Ala Gln Arg His Val Ala Ala
530 535 540
Gly Thr Gln Gln Pro Tyr Thr Asp Gly Val Arg Met Glu Glu Ile Val
545 550 555 560
Glu Gly Cys Thr Gly Ala Leu His Ile Leu Ala Arg Asp Pro Met Asn
565 570 575
Arg Met Glu Ile Phe Arg Leu Asn Thr Ile Pro Leu Phe Val Gln Leu
580 585 590
Leu Tyr Ser Ser Val Glu Asn Ile Gln Arg Val Ala Ala Gly Val Leu
595 600 605
Cys Glu Leu Ala Gln Asp Lys Glu Ala Ala Asp Ala Ile Asp Ala Glu
610 615 620
Gly Ala Ser Ala Pro Leu Met Glu Leu Leu His Ser Arg Asn Glu Gly
625 630 635 640
Thr Ala Thr Tyr Ala Ala Ala Val Leu Phe Arg Ile Ser Glu Asp Lys
645 650 655
Asn Pro Asp Tyr Arg Lys Arg Val Ser Val Glu Leu Thr Asn Ser Leu
660 665 670
Phe Lys His Asp Pro Ala Ala Trp Glu Ala Ala Gln Ser Met Ile Pro
675 680 685
Ile Asn Glu Pro Tyr Gly Asp Asp Met Asp Ala Thr Tyr Arg Pro Met
690 695 700
Tyr Ser Ser Asp Val Pro Leu Asp Pro Leu Glu Met His Met Asp Met
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Tyr Pro Thr Ala Asp His Met Leu Ala
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<210> 410
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<212> DNA
<213> Homo sapiens

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cccaacggga gtccttgga cgaagcgagg gagtccgtgtg cttttactca acatctgtct 420
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<210> 411
<211> 570
<212> DNA
<213> Homo sapiens

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 <213> Homo sapiens

<400> 412						
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<210> 413
 <211> 543
 <212> DNA
 <213> Homo sapiens

<400> 413						
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 <212> DNA
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<210> 416
 <211> 420
 <212> DNA
 <213> Homo sapiens

<400> 416						
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cagatctggg	ttaccatctt	ttaacaaaag	gcaaagtgtc	tctcttcctt	cagaaagagt	360
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 <211> 523
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)...(523)
 <223> n = g, a, c or t

<400> 417						
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cccagatggg	cccgcaggcg	tcaccgtctg	gtttggagac	cttaagggag	ttgtgcttca	360
aacttctctc	ccaggggtctc	aggtggagac	tagggagttt	gacctaaagg	tcctccaagg	420
agaggccaag	gtcttggaga	cagatctggg	ttaccatctt	ttaacaaaag	gcaaagtgtc	480
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<210> 418
 <211> 486
 <212> DNA
 <213> Homo sapiens

<400> 418						
aggcagtaca	agtgtgatgg	caatgtgact	ggaacagaaa	tagtttctac	caggcacaca	60
aaagctcctg	taagccccgt	agttccatcc	tgcaaagggc	ctcagtggga	accaggtctg	120
cagacccagt	gggcagagag	acgggtggaa	gcaggtgccc	cagatgggtc	cgcaggcgctc	180
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gtggagacta	gggagtttga	cctaaaggtc	ctccaaggag	aggccaaggt	cttgagagaca	300
gatctggttt	accatctttt	aacaaaaggc	aaatgtcttc	tcttccttca	gaaagagtca	360
ttaacactaa	aattcttttc	ttcggagttt	cttctttccc	gatgcatctc	ccgttttgtc	420
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gttctct						486

<210> 419
 <211> 2876
 <212> DNA
 <213> Homo sapiens

<400> 419

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tctgagaact	tcaggatgca	gatgtctcca	gccctcacct	gcctagtcct	gggcctggcc	120
cttgtctttg	gtgaagggtc	tgctgtgcac	catcccccat	cctacgtggc	ccacctggcc	180
tcagacttcg	gggtgagggt	gtttcagcag	gtggcgagcag	cctccaagga	cgcgaacgtg	240
gttttctcac	cctatggggg	ggcctcggtg	ttggccatgc	tccagctgac	aacaggagga	300
gaaacccagc	agcagattca	agcagctatg	ggattcaaga	ttgatgacaa	gggcatggcc	360
cccgcctcc	ggcatctgta	caaggagctc	atggggccat	ggaacaagga	tgagatcagc	420
accacagacg	cgatcttcgt	ccagcgggat	ctgaagctgg	tccagggctt	catgccccac	480
ttcttcaggc	tgttccggag	cacggtcaag	caagtggact	tttcagaggt	ggagagagcc	540
agattcatca	tcaatgactg	ggtgaagaca	cacacaaaag	gtatgatcag	caacttgctt	600
gggaaaggag	ccgtggacca	gctgacacgg	ctggtgctgg	tgaatgccct	ctacttcaac	660
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gggttatatt	ggagtgtagg	tgacttgttt	actcattgaa	gcagatttct	gcttcctttt	1980
atttttatag	gaatagagga	agaaatgtca	gatgcgtgcc	cagctcttca	cccccaatc	2040
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gagagaaaga	gaactactaa	ggaaaataat	attattttaa	ctcgctccta	gtgtttcttt	2160
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ccgcgcccc	cgcgccccct	tttttcccct	tgatggaaat	tgaccataca	atttcacct	2340
ccttcagggg	atcaaaagga	cggagtgggg	ggacagagac	tcagatgagg	acagagtggg	2400
ttccaatgtg	ttcaatagat	ttaggagcag	aaatgcaagg	ggctgcatga	cctaccagga	2460
cagaactttc	cccaattaca	gggtgactca	cagccgcatt	ggtgactcac	ttcaatgtgt	2520
catttccggc	tgctgtgtgt	gagcagtggg	cacgtgaggg	gggggtgggt	gagagagaca	2580
ggcagctcgg	attcaactac	cttagataat	atcttctgaa	acctaccagc	cagagggtag	2640
ggcacaaaga	tggatgtaat	gcactttggg	aggccaaggc	gggaggattg	cttgagccca	2700
ggagttcaag	accagcctgg	gcaacatacc	aagacccccg	tctctttaa	aatatatata	2760
ttttaaatat	acttaaatat	atattttctaa	tatctttaa	tatatatata	tattttaaag	2820
accaattttat	gggagaattg	cacacagatg	tgaaatgaat	gtaatcta	agaagc	2876

<210> 420
 <211> 402
 <212> PRT
 <213> Homo sapiens

<400> 420

Met	Gln	Met	Ser	Pro	Ala	Leu	Thr	Cys	Leu	Val	Leu	Gly	Leu	Ala	Leu
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Val	Phe	Gly	Glu	Gly	Ser	Ala	Val	His	His	Pro	Pro	Ser	Tyr	Val	Ala
			20					25					30		
His	Leu	Ala	Ser	Asp	Phe	Gly	Val	Arg	Val	Phe	Gln	Gln	Val	Ala	Gln
		35					40					45			
Ala	Ser	Lys	Asp	Arg	Asn	Val	Val	Phe	Ser	Pro	Tyr	Gly	Val	Ala	Ser
		50				55					60				
Val	Leu	Ala	Met	Leu	Gln	Leu	Thr	Thr	Gly	Gly	Glu	Thr	Gln	Gln	Gln
65					70					75					80
Ile	Gln	Ala	Ala	Met	Gly	Phe	Lys	Ile	Asp	Asp	Lys	Gly	Met	Ala	Pro
				85					90					95	
Ala	Leu	Arg	His	Leu	Tyr	Lys	Glu	Leu	Met	Gly	Pro	Trp	Asn	Lys	Asp
			100					105					110		
Glu	Ile	Ser	Thr	Thr	Asp	Ala	Ile	Phe	Val	Gln	Arg	Asp	Leu	Lys	Leu
		115					120					125			
Val	Gln	Gly	Phe	Met	Pro	His	Phe	Phe	Arg	Leu	Phe	Arg	Ser	Thr	Val
	130					135					140				
Lys	Gln	Val	Asp	Phe	Ser	Glu	Val	Glu	Arg	Ala	Arg	Phe	Ile	Ile	Asn
145					150					155					160
Asp	Trp	Val	Lys	Thr	His	Thr	Lys	Gly	Met	Ile	Ser	Asn	Leu	Leu	Gly
				165					170					175	
Lys	Gly	Ala	Val	Asp	Gln	Leu	Thr	Arg	Leu	Val	Leu	Val	Asn	Ala	Leu
			180					185					190		
Tyr	Phe	Asn	Gly	Gln	Trp	Lys	Thr	Pro	Phe	Pro	Asp	Ser	Ser	Thr	His
		195					200					205			
Arg	Arg	Leu	Phe	His	Lys	Ser	Asp	Gly	Ser	Thr	Val	Ser	Val	Pro	Met
		210				215					220				
Met	Ala	Gln	Thr	Asn	Lys	Phe	Asn	Tyr	Thr	Glu	Phe	Thr	Thr	Pro	Asp
225					230					235					240
Gly	His	Tyr	Tyr	Asp	Ile	Leu	Glu	Leu	Pro	Tyr	His	Gly	Asp	Thr	Leu
				245					250					255	
Ser	Met	Phe	Ile	Ala	Ala	Pro	Tyr	Glu	Lys	Glu	Val	Pro	Leu	Ser	Ala
			260					265					270		
Leu	Thr	Asn	Ile	Leu	Ser	Ala	Gln	Leu	Ile	Ser	His	Trp	Lys	Gly	Asn
		275					280					285			
Met	Thr	Arg	Leu	Pro	Arg	Leu	Leu	Val	Leu	Pro	Lys	Phe	Ser	Leu	Glu
		290				295					300				
Thr	Glu	Val	Asp	Leu	Arg	Lys	Pro	Leu	Glu	Asn	Leu	Gly	Met	Thr	Asp
305					310					315					320
Met	Phe	Arg	Gln	Phe	Gln	Ala	Asp	Phe	Thr	Ser	Leu	Ser	Asp	Gln	Glu
				325					330					335	
Pro	Leu	His	Val	Ala	Gln	Ala	Leu	Gln	Lys	Val	Lys	Ile	Glu	Val	Asn
			340					345					350		
Glu	Ser	Gly	Thr	Val	Ala	Ser	Ser	Ser	Thr	Ala	Val	Ile	Val	Ser	Ala
		355					360					365			
Arg	Met	Ala	Pro	Glu	Glu	Ile	Ile	Met	Asp	Arg	Pro	Phe	Leu	Phe	Val
		370				375					380				
Val	Arg	His	Asn	Pro	Thr	Gly	Thr	Val	Leu	Phe	Met	Gly	Gln	Val	Met
385					390					395					400
Glu	Pro														

<210> 421

<211> 428

<212> DNA

<213> Homo sapiens

<400> 421

acactgccct ccttcttgag ggtcccagcc tgcgatgatg attcccgcga tcaggtcttc	60
ccgggtatcgg taacacatct ccttaaagag actggctgct gtgtggacca gtggaggctc	120

attcagttca	atgctgtgga	aaccgagctg	gtaggtgaca	gcatacagcta	ctgcctgggt	180
atcagcagct	gagcctgagc	gacagcagaa	aatgcggtcg	tgaatagggtg	tcagcttgtc	240
agtcactcga	ttggcgatgt	aggacccagt	ggttggttctg	gagtcgcgcc	ccagaaccac	300
gccccgtca	aactgcacgg	ccatgatagt	ggtcccagtg	gaaacttctc	ggctttccca	360
gtctggagt	aacgcctccg	gcccccaage	cggtgctggc	ccggctcccc	gagcagctag	420
taaggtag						428

<210> 422
 <211> 622
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(622)
 <223> n = g, a, c or t

<400> 422						
cgaactgctc	ggtgcccgcg	gtatccagga	tctccagcac	cgacggcgac	gagtccacct	60
caatctcctt	gcggtaaaag	tcttcgatgg	tcgggtcgta	cttctcgatg	aaggagcccg	120
tcacgaactg	cacggtgagc	gcggacttgc	ccacgcgcgc	cgagcccagc	accaccactt	180
tgtactctct	catggctccg	tcagcgtctt	cgccgcgcct	gccgcggccc	cgtcgggggt	240
gcgcgcggga	aaggctgggc	ttggcgggct	ggactttctt	tcccccttct	cagctacgca	300
ggaaaaaacc	aggagagagc	aaccagaga	acgcaggggc	gaaaccaccg	aaacggaagg	360
cgggccgcca	ggcccggccc	ggcggccggc	gggcaaggcg	ntaatccctg	ggggctagca	420
cggggtcccc	ggggcccacg	gaaggcaagg	tcaccggnag	gcaggcaagg	acangacagc	480
cccngngnga	cgggcagaaa	acccgggaan	gaggggacaa	attggcccac	ggcaagcctt	540
tggcgncacg	ngaagaaaaa	ccacaagggc	aacaaggggg	gngttaacgn	cattaaggaa	600
taacacagcg	cggagccgag	ag				622

<210> 423
 <211> 515
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(515)
 <223> n = g, a, c or t

<400> 423						
cgcagctgcg	ggcattgtcc	tctcggttcg	ccgcccgggc	tgctgctgcc	gccgcggact	60
gctgcggggc	ccggacccgc	accccaggga	tacgtgccc	ccgtcgccgg	ccggcccggg	120
cccggcctcc	gttcggtggt	ttccgccttg	cgttctcttg	ggtgctctct	cctgggtttt	180
tctgctgtag	ctgaggaagg	ggaagagaag	tccagccgcc	aagcccagcc	ttccccggcg	240
cagccccgac	ggggccgccg	gacaggcgcg	ggcggagaag	cgctgacgga	gccatgagga	300
gagtacacaa	gtggtggtgc	tagggctcga	ggcaggagtg	gggcaaagtc	cgcagacttc	360
aaccgtggca	agatacggtt	ggaacacggg	gcatacctca	atcgnagaaa	aggtacgaac	420
ccgaacncat	cgaaagaact	ttttaaccgg	ccaaggnagn	aatggagagt	gggacctcag	480
gnctacgncc	cgtcccggga	ngcttggaag	aatcc			515

<210> 424
 <211> 458
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(458)
 <223> n = g, a, c or t

```

<400> 424
cgaactgctc ggtgcccgcc gtatccagga tctccagcac cgacggcgac gagtccacct      60
caatctcctt gcggtaaaaag tcttcgatgg tcgggtcgta cttctcgatg aaggagcccc      120
tcacgaactg cacgggtgag cagcggactt gcccagagac cggaccgagc ccagacacac      180
accactatat gtactcatct caatggcatc cgncagagct catcgncga cagacctgcc      240
gnnggacccc gatacagggg ggcatgtcag cgcgnggaa aagggcattng gggncatagg      300
acagggacaa tagggaacag ntatcatcat tcacacacat atcgcatcaa agcnatacgc      360
aaagggaaaa acaanaacgc ccaagagaag aaagaggcaa aacccccaaag gaanngaaaa      420
caacagggcc aacaagaggg gaccggggag gaaaaaaaa      458

```

```

<210> 425
<211> 447
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(447)
<223> n = g, a, c or t

```

```

<400> 425
cgaactgctc ggtgcccgcc gtatccagga tctccagcac cgacggcgac gagtccacct      60
caatctcctt gcggtaaaaag tcttcgatgg tcgggtcgta cttctcgatg aaggagcccc      120
tcacgaactg cacgggtgagc gcggacttgc ccacgccgcc cgagcccagc accaccactt      180
tgtactctct catgggtccg tcagcgtctt cgccgcgcct gccgcggccc cgtcggggct      240
gcgcgcgggg aaggctgggc ttggcaggct ggacttctct tcccttctct cagctacgca      300
ggaaaaacc aggagagagc aaccagaga acgcaggcg ggaaaccacc gaacggaggc      360
cgggcgcggg gccgtccggc cggacgangg cagtgcgggg gcgaaccgag aggaacaaat      420
gcccagagag cccttgcggc cgaaaaa      447

```

```

<210> 426
<211> 382
<212> DNA
<213> Homo sapiens

<220>
<221> modified_base
<222> (1)...(382)
<223> n = g, a, c or t

```

```

<400> 426
cgaactgctc ggtgcccgcc gtatccagga tctccagcac cgacggcgac gagtccacct      60
caatctcctt gcggtaaaaag tcttcgatgg tcgggtcgta cttctcgatg aaggagcccc      120
tcacgaactg cacgggtgagc gcggacttgc ccacgccgcc cgagcccagc accaccactt      180
tgtactctct catgggtccg tcagcgtctt cgccgcgcct gccgngggccc cgtcggggct      240
gcgcgcgggg aaggctgggc ttggcggctg gacttctctt ccccttctct agntacgcag      300
gaaaaaccca ggagagagc aaccaggag aacgcagggc ggaaagcacg cggaacggag      360
tgccggggcgc cgggcccggcc cg      382

```

```

<210> 427
<211> 560
<212> DNA
<213> Homo sapiens

```

```

<400> 427
cgaactgctc ggtgcccgcc gtatccagga tctccagcac cgacggcgac gagtccacct      60
caatctcctt gcggtaaaaag tcttcgatgg tcgggtcgta cttctcgatg aaggagcccc      120
tcacgaactg cacgggtgagc gcggacttgc ccacgccgcc cgagcccagc accaccactt      180
tgtactctct catgggtccg tcagcgtctt cgccgcgcct gccgcggccc cgtcggggct      240
gcgcgcgggg aaggctgggc ttggcggctg gacttctctt ccccttctct agctacgcag      300
gaaaaaccca ggagagagca acccagagaa cgcaggggcg aaaccaccga acggaggccg      360

```

ggcgccgggc	cggccggcgg	cggcggcagc	gtatccctgg	ggtgcggggtc	cgggccccgc	420
agcagtccgc	ggcggcagca	gcagcccggg	cggcgaaaccg	agaggacaat	gccccgagcc	480
tgcgccgcag	aaccagcac	agtggttaga	tagataaagc	ggcgctcgac	tagtctgagg	540
tctgatactc	actgactgaa					560

<210> 428
 <211> 1733
 <212> DNA
 <213> Homo sapiens

<400> 428						
gcacgttccg	cggggactca	tgccacgcgc	gtcccggccc	gacgcgcaat	tagcagccac	60
ctccgcagcc	cgccgccacc	gcctccctgc	cctcccgggc	tgccgcagct	aggagctcca	120
gccgtcgct	cgcgcaggct	gcgggcattg	tcctctcggt	tcgccgcccg	ggctgctgct	180
gccgccgcgg	actgctgcgg	ggcccggacc	cgcaccccag	ggatacgctg	ccgccgccgc	240
cggccggccc	ggcgcccggc	ctccgttcgg	tggtttccgc	cctgcgttct	ctgggttgct	300
ctctcctggg	tttttctgc	gtagctgagg	aaggggaaga	gaagtccagc	cgccaagccc	360
agccttcccc	ggcgcgagc	cccgcgggg	ccgcggcagg	cgcggcgaga	gcgctgacgg	420
agccatgaga	gagtacaaag	tggtggtgct	gggctcgggc	ggcgtgggca	agtccgcgct	480
caccgtgcag	ttcgtgacgg	gctccttcat	cgagaagtac	gacccgacca	tcgaagactt	540
ttaccgcaag	gagattgagg	tggactcgtc	gccgtcggtg	ctggagatcc	tggtacggc	600
gggcaccgag	cagttcgcg	ccatgcggga	cctgtacatc	aagaacggcc	agggcttcat	660
cctggtctac	agcctcgta	accagcagag	cttccaggac	atcaagccca	tgcgggacca	720
gatcatccgc	gtgaagcgg	acgagcgct	gcccattgat	ctgggtgggca	acaaggtgga	780
cctggagggt	gagcgcgagg	tctcgtagcg	ggagggcaag	gccctggctg	aggagtggag	840
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ctgcgtgatc	ctctgaggcg	gccaccgcgc	gccggccgcg	ctctgcgcac	aaaagccaaa	1020
cgcattccgac	tctctaaatg	tgatttat	cttgctttga	gattggagac	cactttgcat	1080
tgccagggt	gtcttgggag	cccggctggc	ctccgcggcc	ggcgccccct	gcctccaccc	1140
tgtgcccag	ggggtgtccg	gtcctgccc	tcgatactc	tggtggaaat	gtggctcttt	1200
gcagcatgta	cgtttctccc	tgattttggt	tgatgcata	ttccccgttt	aagtagccgt	1260
tagggcgag	tatcggcagc	ttgacaccca	ccaagcaaaa	gtttcagcct	ggaaaaaaa	1320
tggggggggaa	gggtggatga	aaaggaggga	gagaagggtg	aaatgggttt	tttttttttt	1380
tttctatttt	ctttcttttt	tttttttttt	tttttttggtc	aacagccgtt	tttctagttc	1440
caagtttttaa	atacatggaa	ggaagtccgg	gagaaccata	tgaaggagca	ggaggagagg	1500
aagaaacttt	ttttccttct	tttcaggag	tagctggaaa	ttaagatcgg	gttccttttc	1560
tgccagcttg	gaagggcaac	cccatgactg	attgcgattc	tgaggatgtc	tatgcaaagt	1620
tggtattcttg	ttacagtgtg	tccaatctga	agtattgcac	atctgaactg	ggactgttaa	1680
cactgatgcc	aatacagtgt	ggggtgccag	aaagtgtctg	ctgatatttg	tgg	1733

<210> 429
 <211> 183
 <212> PRT
 <213> Homo sapiens

<400> 429															
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Ser	Ala	Leu	Thr	Val	Gln	Phe	Val	Thr	Gly	Ser	Phe	Ile	Glu	Lys	Tyr
			20					25					30		
Asp	Pro	Thr	Ile	Glu	Asp	Phe	Tyr	Arg	Lys	Glu	Ile	Glu	Val	Asp	Ser
		35					40					45			
Ser	Pro	Ser	Val	Leu	Glu	Ile	Leu	Asp	Thr	Ala	Gly	Thr	Glu	Gln	Phe
		50				55				60					
Ala	Ser	Met	Arg	Asp	Leu	Tyr	Ile	Lys	Asn	Gly	Gln	Gly	Phe	Ile	Leu
65					70				75					80	
Val	Tyr	Ser	Leu	Val	Asn	Gln	Gln	Ser	Phe	Gln	Asp	Ile	Lys	Pro	Met
			85					90					95		
Arg	Asp	Gln	Ile	Ile	Arg	Val	Lys	Arg	Tyr	Glu	Arg	Val	Pro	Met	Ile
			100					105					110		

Leu Val Gly Asn Lys Val Asp Leu Glu Gly Glu Arg Glu Val Ser Tyr
 115 120 125
 Gly Glu Gly Lys Ala Leu Ala Glu Glu Trp Ser Cys Pro Phe Met Glu
 130 135 140
 Thr Ser Ala Lys Asn Lys Ala Ser Val Asp Glu Leu Phe Ala Glu Ile
 145 150 155 160
 Val Arg Gln Met Asn Tyr Ala Ala Gln Pro Asn Gly Asp Glu Gly Cys
 165 170 175
 Cys Ser Ala Cys Val Ile Leu
 180

<210> 430
 <211> 563
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(563)
 <223> n = g, a, c or t

<400> 430
 cggcagaaaa cagagcctgc ctaaccaggc ccagccagtt ggtggggcca ggccaggacc 60
 acacagtccc cagactcagc tggaagtcta cctgctggac agcctccgcc aagatctaca 120
 ggacaaaggg agggagcaag ccctactcgg atggggcacg gactgtccac cttttctgat 180
 gtgtgttgct agcctgtgct gtggcataga catggatgcg aggaccactt tggagactgg 240
 ggtggcctca agagcacaca gagaaggga gaaggggcca tcacaggatg ccagcccctg 300
 cctgggttg gggcactcag ccacgaccag ccccttcctg ggtatttatt ctctatttat 360
 tggggatagg agaagaggca tcctgcctgg gtgggacagg cccttcagcc ccttctccnc 420
 tccccgcctg gccagggcag ggccacccca ctctacctcc ttagctttcc ctgtgccact 480
 ttgactcaga ggctgggagc atagcagagg ggccaggccc aggcagagct gacgggaggg 540
 cccagctctg aggggagggg gtc 563

<210> 431
 <211> 478
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(478)
 <223> n = g, a, c or t

<400> 431
 cggcagcaaa acagancctg cctaaccagg acccanccag ttggtggggc caggccagga 60
 ccacacagtc cccagactca gctggaagtc tacctgctgg acagcctccg ccaagatcta 120
 caggacaaag ggagggagca agtcctactc ggatggggca cggactgtcc accttttctg 180
 atgtgtgttg tcagcctgtg ctgtggcata gacatggatg cgaggaccac tttggagact 240
 ggggtggcct caagagcaca cagagaaggg aagaaggggc catcacagga tgccagcccc 300
 tgccctgggtt gggggcactc agccacgacc agccccttcc tgggtattta ttctctattt 360
 attggggata ggagaagagg catcctgcct gggtgggaca gccccttcag ccccttctcc 420
 nctccccgac tggccagggc agggccaccc cactctacct cctnanattc ccctgtgc 478

<210> 432
 <211> 743
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(743)
 <223> n = g, a, c or t

<400> 432
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 accaggagcc cccacccatc tacccaactg cccccagag ctaattacat ccacacccat 120
 cccctgaagt ggtggacata agggagccct ggggagcctc taccggcccc aggcctctac 180
 cacggacccc ctcccctcag agctggggcc tcccgtcagc tctgcctggg cctggcccct 240
 ctgctatgct cccagcctct gagtcaaagt ggcacaggga aagctaagga ggtagagtgg 300
 ggtggccctg ccctggccag gcggggaggg gagaaggggc tgaaggggct gtcccaccca 360
 ggcaggatgc ctcttctcct atccccaata aatagagaat aaatacccag gaaggggctg 420
 gtcgtggctg agtgcccca acccaggcag gggctggcat cctgtgatgg ccccttcttc 480
 ccttctctgt gtgctcttga ggccaccca gtctccaaag tggctcctgc atccatgtct 540
 atgccacagc acaggctgac aacacacatc anaaaagggtg gacagtccgt gccccatccg 600
 agtagggctt gctccctccc tttgtcctgt agatcttggc ggangctgtc cagcagggtan 660
 acttccagct gantctgggg actgtgtggg cctggcctgg cccaccaact ggntggcctg 720
 gttaggcagg tctgttttct tgc 743

<210> 433
 <211> 636
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(636)
 <223> n = g, a, c or t

<400> 433
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 acacagtccc cagactcagc tggaagtcta cctgctggac agcctccgcc aagatctaca 120
 ggacaaaggg agggagcaag ccctactcgg atggggcacg gactgtccac cttttctgat 180
 gtgtgttgtc agcctgtgct gtggcataga catggatgcy aggaccactt tggagactgg 240
 ggtggcctca agagcacaca gagaagggaa gaaggggcca tcacaggatg ccagcccctg 300
 cctgggttgg gggcactcag ccacgaccag ccccttcctg ggtatttatt ctctatttat 360
 tggggatagg agaagaggca tctgcctgg gtgggacagc cccttcagcc ccttctccnc 420
 tccccgctg gccagggcag ggccacccca ctctacctcc ttagctttcc ctgtgccact 480
 ttgactcaga ggctgggagc atagcagagg ggccaggccc aggcagagct gacgggaggc 540
 cccagctctg aggggagggg gtccgtggta gaggcctggg gccggtagag gctccccagg 600
 gctcccttat gtccaccact tcaggggatg ggtgtg 636

<210> 434
 <211> 635
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(635)
 <223> n = g, a, c or t

<400> 434
 gccagtgttt attagcaaga tggaacccaa aggcggctgt ggcctgggca gcagaaggcc 60
 accaggagcc cccacccatc tacccaactg cccccagag ctaattacat ccacacccat 120
 cccctgaagt ggtggacata agggagccct ggggagcctc taccggcccc aggcctctac 180
 cacggacccc ctcccctcag agctggggcc tcccgtcagc tctgcctggg cctggcccct 240
 ctgctatgct cccagcctct gagtcaaagt ggcacaggga aagctaagga ggtagagtgg 300
 ggtggccctg ccctggccag gcggggaggg gagaaggggc tgaaggggct gtcccaccca 360
 ggcaggatgc ctcttctcct atccccaata aatagagaat aaatacccag gaaggggctg 420

gtcgtggctg	agtgccccca	acccaggcag	gggctggcat	cctgtgatgg	ccccctcttc	480
ccttctctgt	gtgctcttga	ggncacccca	gtctccaaag	tggtcctcgc	atccatgtct	540
atgccacagc	acaggctgac	aacacacatc	anaaaaaggtg	gacagtccgt	gccccatccg	600
antagggctt	gtccctccc	tttgtcctgt	aaatc			635

<210> 435
 <211> 586
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(586)
 <223> n = g, a, c or t

<400> 435						
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accaggagcc	cccacccatc	tacccaactg	ccccccagag	ctaattacat	ccacacccat	120
cccctgaagt	ggtggacata	agggagccct	ggggagcctc	taccggcccc	aggcctctac	180
cacggacccc	ctccccctcag	agctggggcc	tcccgtcagc	tctgcctggg	cctggccccct	240
ctgctatgct	cccagcctct	gagtcaaagt	ggcacaggga	aagctaanga	ggtagagtgg	300
ggtggccctg	ccctggccag	gcggggaggg	gagaaggggc	tgaaggggct	gtcccaccca	360
ggcaggatgc	ctcttctcct	atcccccaata	aatagagaat	aaatacccag	naaggggctg	420
gtcgtggctg	agtgccccca	acccangcag	gggctggcat	cctgtgatgg	ccccctcttc	480
ccttctctgt	gtgctcttga	ggccacccca	gtctccaaag	tggtcctcgc	atccatgtct	540
atgccacagc	acaggctgac	aacacacatc	anaaaaaggt	ggacag		586

<210> 436
 <211> 748
 <212> DNA
 <213> Homo sapiens

<400> 436						
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cccctgaagt	ggtggacata	agggagccct	ggggagcctc	taccggcccc	aggcctctac	180
cacggacccc	ctccccctcag	agctggggcc	tcccgtcagc	tctgcctggg	cctggccccct	240
ctgctatgct	cccagcctct	gagtcaaagt	ggcacaggga	aagctaagga	ggtagagtgg	300
ggtggccctg	ccctggccag	gcggggaggg	gagaaggggc	tgaaggggct	gtcccaccca	360
ggcaggatgc	ctcttctcct	atcccccaata	aatagagaat	aaatacccag	gaaggggctg	420
gtcgtggctg	agtgccccca	acccaggcag	gggctggcat	cctgtgatgg	ccccctcttc	480
ccttctctgt	gtgctcttga	ggccacccca	gtctccaaag	tggtcctcgc	atccatgtct	540
atgccacagc	acaggctgac	aacacacatc	agaaaaggtg	gacagtccgt	gccccatccg	600
agtagggctt	gtcctctccc	ttttgtcctg	tagatcttgg	cggaggctgt	ccagcaggta	660
gacttccagc	tgagtctggg	gactgtgtgg	tcctggcctg	gccccaccaa	ctggctgggc	720
ctggttaggc	aggctctgtt	ttctgccc				748

<210> 437
 <211> 3552
 <212> DNA
 <213> Homo sapiens

<400> 437						
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gcctggccat	ccttccctac	ccaggaccac	ctcccggcca	cgccccgggt	acggctctca	420
ttcaaaagagc	tgaaggccac	aggcaccgcc	cacttcttca	acttctctgt	caacacaacc	480

gactaccgaa	tcttgctcaa	ggacgaggac	cacgaccgca	tgtacgtggg	cagcaaggac	540
tacgtgctgt	ccctggacct	gcacgacatc	aaccgcgagc	ccctcattat	acactgggca	600
gcctccccac	agcgcacgca	ggaatgcgtg	ctctcaggca	aggatgtcaa	cggcgagtgt	660
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cagagccccg	cgggtgtacgc	ccgcatcggg	cgcatttgcc	tgaacgatga	cgggtggtcac	1140
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aaaaaaaaaa	aa					3552

<210> 438

<211> 753

<212> PRT

<213> Homo sapiens

<400> 438

Met	Val	Ala	Gly	Leu	Leu	Leu	Trp	Ala	Ser	Leu	Leu	Thr	Gly	Ala
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Trp	Pro	Ser	Phe	Pro	Thr	Gln	Asp	His	Leu	Pro	Ala	Thr	Pro	Arg	Val
			20					25					30		
Arg	Leu	Ser	Phe	Lys	Glu	Leu	Lys	Ala	Thr	Gly	Thr	Ala	His	Phe	Phe
		35					40					45			
Asn	Phe	Leu	Leu	Asn	Thr	Thr	Asp	Tyr	Arg	Ile	Leu	Leu	Lys	Asp	Glu
	50					55					60				
Asp	His	Asp	Arg	Met	Tyr	Val	Gly	Ser	Lys	Asp	Tyr	Val	Leu	Ser	Leu
65					70					75					80
Asp	Leu	His	Asp	Ile	Asn	Arg	Glu	Pro	Leu	Ile	Ile	His	Trp	Ala	Ala
				85					90					95	
Ser	Pro	Gln	Arg	Ile	Glu	Glu	Cys	Val	Leu	Ser	Gly	Lys	Asp	Val	Asn
			100					105					110		
Gly	Glu	Cys	Gly	Asn	Phe	Val	Arg	Leu	Ile	Gln	Pro	Trp	Asn	Arg	Thr
		115					120					125			
His	Leu	Tyr	Val	Cys	Gly	Thr	Gly	Ala	Tyr	Asn	Pro	Met	Cys	Thr	Tyr
	130					135					140				
Val	Asn	Arg	Gly	Arg	Arg	Ala	Gln	Asp	Tyr	Ile	Phe	Tyr	Leu	Glu	Pro
145					150					155					160
Glu	Arg	Leu	Glu	Ser	Gly	Lys	Gly	Lys	Cys	Pro	Tyr	Asp	Pro	Lys	Leu
				165					170					175	
Asp	Thr	Ala	Ser	Ala	Leu	Ile	Asn	Glu	Glu	Leu	Tyr	Ala	Gly	Val	Tyr
			180					185					190		
Ile	Asp	Phe	Met	Gly	Thr	Asp	Ala	Ala	Ile	Phe	Arg	Thr	Leu	Gly	Lys
		195					200					205			
Gln	Thr	Ala	Met	Arg	Thr	Asp	Gln	Tyr	Asn	Ser	Arg	Trp	Leu	Asn	Asp
	210					215					220				
Pro	Ser	Phe	Ile	His	Ala	Glu	Leu	Ile	Pro	Asp	Ser	Ala	Glu	Asn	Asp
225					230					235					240
Asp	Lys	Leu	Tyr	Phe	Phe	Phe	Arg	Glu	Arg	Ser	Ala	Glu	Ala	Pro	Gln
				245					250					255	
Ser	Pro	Ala	Val	Tyr	Ala	Arg	Ile	Gly	Arg	Ile	Cys	Leu	Asn	Asp	Asp
			260					265					270		
Gly	Gly	His	Cys	Cys	Leu	Val	Asn	Lys	Trp	Ser	Thr	Phe	Leu	Lys	Ala
		275					280					285			
Arg	Leu	Val	Cys	Ser	Val	Pro	Gly	Glu	Asp	Gly	Ile	Glu	Thr	His	Phe
	290					295					300				
Asp	Glu	Leu	Gln	Asp	Val	Phe	Val	Gln	Gln	Thr	Gln	Asp	Val	Arg	Asn
305					310					315					320
Pro	Val	Ile	Tyr	Ala	Val	Phe	Thr	Ser	Ser	Gly	Ser	Val	Phe	Arg	Gly
				325					330					335	
Ser	Ala	Val	Cys	Val	Tyr	Ser	Met	Ala	Asp	Ile	Arg	Met	Val	Phe	Asn
			340					345					350		
Gly	Pro	Phe	Ala	His	Lys	Glu	Gly	Pro	Asn	Tyr	Gln	Trp	Met	Pro	Phe
		355					360					365			
Ser	Gly	Lys	Met	Pro	Tyr	Pro	Arg	Pro	Gly	Thr	Cys	Pro	Gly	Gly	Thr
	370					375					380				
Phe	Thr	Pro	Ser	Met	Lys	Ser	Thr	Lys	Asp	Tyr	Pro	Asp	Glu	Val	Ile
385					390					395					400
Asn	Phe	Met	Arg	Ser	His	Pro	Leu	Met	Tyr	Gln	Ala	Val	Tyr	Pro	Leu
				405					410					415	
Gln	Arg	Arg	Pro	Leu	Val	Val	Arg	Thr	Gly	Ala	Pro	Tyr	Arg	Leu	Thr
			420					425					430		
Thr	Ile	Ala	Val	Asp	Gln	Val	Asp	Ser	Ala	Asp	Gly	Arg	Tyr	Glu	Val
	435					440						445			
Leu	Phe	Leu	Gly	Thr	Asp	Arg	Gly	Thr	Val	Gln	Lys	Val	Ile	Val	Leu
	450					455					460				
Pro	Lys	Asp	Asp	Gln	Glu	Met	Glu	Glu	Leu	Met	Leu	Glu	Glu	Val	Glu
465					470					475					480
Val	Phe	Lys	Asp	Pro	Ala	Pro	Val	Lys	Thr	Met	Thr	Ile	Ser	Ser	Lys
				485					490					495	

Arg	Gln	Gln	Leu	Tyr	Val	Ala	Ser	Ala	Val	Gly	Val	Thr	His	Leu	Ser
			500					505					510		
Leu	His	Arg	Cys	Gln	Ala	Tyr	Gly	Ala	Ala	Cys	Ala	Asp	Cys	Cys	Leu
		515					520					525			
Ala	Arg	Asp	Pro	Tyr	Cys	Ala	Trp	Asp	Gly	Gln	Ala	Cys	Ser	Arg	Tyr
	530					535					540				
Thr	Ala	Ser	Ser	Lys	Arg	Arg	Ser	Arg	Arg	Gln	Asp	Val	Arg	His	Gly
545					550					555					560
Asn	Pro	Ile	Arg	Gln	Cys	Arg	Gly	Phe	Asn	Ser	Asn	Ala	Asn	Lys	Asn
				565					570					575	
Ala	Val	Glu	Ser	Val	Gln	Tyr	Gly	Val	Ala	Gly	Ser	Ala	Ala	Phe	Leu
			580					585					590		
Glu	Cys	Gln	Pro	Arg	Ser	Pro	Gln	Ala	Thr	Val	Lys	Trp	Leu	Phe	Gln
		595					600					605			
Arg	Asp	Pro	Gly	Asp	Arg	Arg	Arg	Glu	Ile	Arg	Ala	Glu	Asp	Arg	Phe
	610					615					620				
Leu	Arg	Thr	Glu	Gln	Gly	Leu	Leu	Leu	Arg	Ala	Leu	Gln	Leu	Ser	Asp
625					630					635					640
Arg	Gly	Leu	Tyr	Ser	Cys	Thr	Ala	Thr	Glu	Asn	Asn	Phe	Lys	His	Val
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Val	Thr	Arg	Val	Gln	Leu	His	Val	Leu	Gly	Arg	Asp	Ala	Val	His	Ala
			660					665					670		
Ala	Leu	Phe	Pro	Pro	Leu	Ser	Met	Ser	Ala	Pro	Pro	Pro	Pro	Gly	Ala
		675					680					685			
Gly	Pro	Pro	Thr	Pro	Pro	Tyr	Gln	Glu	Leu	Ala	Gln	Leu	Leu	Ala	Gln
	690					695					700				
Pro	Glu	Val	Gly	Leu	Ile	His	Gln	Tyr	Cys	Gln	Gly	Tyr	Trp	Arg	His
705					710					715					720
Val	Pro	Pro	Ser	Pro	Arg	Glu	Ala	Pro	Gly	Ala	Pro	Arg	Ser	Pro	Glu
				725					730					735	
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Thr

<210> 439
 <211> 2133
 <212> DNA
 <213> Homo sapiens

<400> 439

cgggagagcg	cgctctgcct	gccgcctgcc	tgccctgccac	tgagggttcc	cagcaccatg	60
agggcctgga	tcttctttct	cctttgcctg	gccgggaggg	ccttggcagc	ccctcagcaa	120
gaagccctgc	ctgatgagac	agaggtggtg	gaagaaactg	tggcagaggt	gactgaggta	180
tctgtgggag	ctaactctgt	ccaggtggaa	gtaggagaat	ttgatgatgg	tcagaggaa	240
accgaagagg	aggtggtggc	ggaaaatccc	tgccagaacc	accactgcaa	acacggcaag	300
gtgtgcgagc	tggatgagaa	caacaccccc	atgtgcgtgt	gccaggaccc	caccagctgc	360
ccagccccc	ttggcgagtt	tgagaaggtg	tcagcaatg	acaacaagac	cttcgactct	420
tcctgccact	tctttgccac	aaagtgcacc	ctggagggca	ccaagaaggg	ccacaagctc	480
cacctggact	acatcgggcc	ttgcaaatac	atccccctt	gcctggactc	tgagctgacc	540
gaattcccc	tgcgcatgcg	ggactggctc	aagaacgtcc	tggtcaccct	gtatgagagg	600
gatgaggaca	acaaccttct	gactgagaag	cagaagctgc	gggtgaagaa	gatccatgag	660
aatgagaagc	gcctggaggc	aggagaccac	cccgtggagc	tgctggcccg	ggacttcgag	720
aagaactata	acatgtacat	cttccttgta	cactggcagt	tcggccagct	ggaccagcac	780
cccattgacg	ggtacctctc	ccacaccgag	ctggctccac	tcgtgtctcc	cctcatcccc	840
atggagcatt	gcaccaccg	ctttttcgag	acctgtgacc	tggaacaatga	caagtacatc	900
gccctggatg	agtgggccc	ctgcttcggc	atcaagcaga	aggatatcga	caaggatcct	960
gtgatctaaa	tccactcctt	ccacagtacc	ggattctctc	tttaaccctc	cccttcgtgt	1020
ttcccccaat	gtttaaaatg	tttgatgggt	ttgttgttct	gcctggagac	aagggtgctaa	1080
catagattta	agtgaataca	ttaacgggtg	taaaaaatgaa	aattctaacc	caagacatga	1140
cattcttagc	tgtaacttaa	ctattaaggc	cttttccaca	cgcattaata	gtcccatttt	1200
tctcttgcca	ttttagtctt	tgccattgt	cttattggca	catgggtgga	cacggatctg	1260

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ctgggctctg ccttaaacac acattgcagc ttcaactttt ctcttttagtg ttctgtttga 1320
aactaatact taccgagtca gactttgtgt tcatttcatt tcagggtctt ggctgcctgt 1380
gggcttcccc aggtggcctg gaggtgggca aagggaagta acagacacac gatgttgtca 1440
aggatggttt tgggactaga ggctcagtgg tgggagagat ccctgcagaa tccaccaacc 1500
agaacgtggg ttgcctgagg ctgtaactga gagaaagatt ctggggctgt cttatgaaaa 1560
tatagacatt ctcacataag cccagttcat caccatttcc tcctttacct ttcagtgcag 1620
tttcttttca cattaggctg ttggttcaaa cttttgggag cacggactgt cagttctctg 1680
ggaagtggtc agcgcatacct gcagggtctt tcctcctctg tcttttggag aaccagggtc 1740
cttctcaggg gctctagga ctgccaggct gtttcagcca ggaaggccaa aatcaagagt 1800
gagatgtaga aagttgtaaa atagaaaaag tggagttggg gaatcggttg ttctttcctc 1860
acatttggat gattgtcata aggttttttag catgttcctc cttttcttca ccctcccctt 1920
tgttcttcta ttaatcaaga gaaacttcaa agttaatggg atgggtcggat ctcacaggct 1980
gagaactcgt tcacctccaa gcatttcatg aaaaagctgc ttcttattaa tcatacaaac 2040
tctcaccatg atgtgaagag tttcacaaat ctttcaaaat aaaaagtaat gacttagaaa 2100
ctgaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa 2133

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<210> 440
<211> 303
<212> PRT
<213> Homo sapiens

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<400> 440
Met Arg Ala Trp Ile Phe Phe Leu Leu Cys Leu Ala Gly Arg Ala Leu
1 5 10 15
Ala Ala Pro Gln Gln Glu Ala Leu Pro Asp Glu Thr Glu Val Val Glu
20 25 30
Glu Thr Val Ala Glu Val Thr Glu Val Ser Val Gly Ala Asn Pro Val
35 40 45
Gln Val Glu Val Gly Glu Phe Asp Asp Gly Ala Glu Glu Thr Glu Glu
50 55 60
Glu Val Val Ala Glu Asn Pro Cys Gln Asn His His Cys Lys His Gly
65 70 75 80
Lys Val Cys Glu Leu Asp Glu Asn Asn Thr Pro Met Cys Val Cys Gln
85 90 95
Asp Pro Thr Ser Cys Pro Ala Pro Ile Gly Glu Phe Glu Lys Val Cys
100 105 110
Ser Asn Asp Asn Lys Thr Phe Asp Ser Ser Cys His Phe Phe Ala Thr
115 120 125
Lys Cys Thr Leu Glu Gly Thr Lys Lys Gly His Lys Leu His Leu Asp
130 135 140
Tyr Ile Gly Pro Cys Lys Tyr Ile Pro Pro Cys Leu Asp Ser Glu Leu
145 150 155 160
Thr Glu Phe Pro Leu Arg Met Arg Asp Trp Leu Lys Asn Val Leu Val
165 170 175
Thr Leu Tyr Glu Arg Asp Glu Asp Asn Asn Leu Leu Thr Glu Lys Gln
180 185 190
Lys Leu Arg Val Lys Lys Ile His Glu Asn Glu Lys Arg Leu Glu Ala
195 200 205
Gly Asp His Pro Val Glu Leu Leu Ala Arg Asp Phe Glu Lys Asn Tyr
210 215 220
Asn Met Tyr Ile Phe Pro Val His Trp Gln Phe Gly Gln Leu Asp Gln
225 230 235 240
His Pro Ile Asp Gly Tyr Leu Ser His Thr Glu Leu Ala Pro Leu Arg
245 250 255
Ala Pro Leu Ile Pro Met Glu His Cys Thr Thr Arg Phe Phe Glu Thr
260 265 270
Cys Asp Leu Asp Asn Asp Lys Tyr Ile Ala Leu Asp Glu Trp Ala Gly
275 280 285
Cys Phe Gly Ile Lys Gln Lys Asp Ile Asp Lys Asp Leu Val Ile
290 295 300

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<210> 441
 <211> 373
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(373)
 <223> n = g, a, c or t

```

<400> 441
ctggcagacc ctggcccaat cctaacagtg ctaactcaat tccatactcc tcctcatcac      60
ctggctacct atgtgggacc cctgggntgg tggcgggtcct ccaggaacac ccattatgcc      120
cagtcccgca gattcaacaa attccagtg caacatctac acaatgatta atccagtgcc      180
gcctggaggc agccgggtcca acttcccgat ggggtcccggc tcgaacgggc cgatgggcgg      240
catgggtggc atggagccac accacatgaa tggatcatta gggtcaggcg acatagacgg      300
ncttccaaaa aattctccta acaacataag tggcattagc aatcctccag gcacccctcg      360
agatgacggc gag                                          373

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<210> 442
 <211> 371
 <212> DNA
 <213> Homo sapiens

```

<400> 442
ctcgccgtca tctcgagggg tgcctggagg attgctaatt ccacttatgt tgtaggaga      60
atTTTTtTga agtccgtcta tgcgcctga ccctaattgat ccattcatgt ggtgtggctc      120
catgccaccc atgccgcca tcggaccgtt cgagccggga cccatcgga agttggaccg      180
gctgcctcca ggcggcactg gattaatcat tgtgtagatg ttgtcactgg aatttgttga      240
atctgcggga ctgggcataa tgggtgttcc tggaggaccg ccaccaccag ggggtccac      300
ataggtacca ggtgatgagg aggagtatgg aattgagtta gcactgttag gattgggcca      360
gggtctgcca g                                          371

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<210> 443
 <211> 372
 <212> DNA
 <213> Homo sapiens

```

<400> 443
ctggcagacc ctggcccaat cctaacagtg ctaactcaat tccatactcc tcctcatcac      60
ctgggtacct tgtgggaccc cctgggctggt ggcgggtcctc caggaacacc cattatgccc      120
agtcccgcag attcaacaaa ttccagtgc aacatctaca caatgattaa tccagtgcgc      180
cctggaggca gccgggtccaa cttcccgatg ggtcccggct cgaacgggtc gatgggcggc      240
atgggtggca tggagccaca ccacatgaat ggatcattag ggtcaggcga catagacgga      300
cttccaaaaa atttctctaa caacataagt ggcattagca atcctccagg caccctcga      360
gatgacggcg ag                                          372

```

<210> 444
 <211> 375
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(375)
 <223> n = g, a, c or t

```

<400> 444
ctcgnccatc atctcnaggg gtgcctgtaa ggatngcata agtgccactt atgttgtnag      60
gagaattttt tgggaagtccg tctatgtcgc ctgaccctaa tgatccattc atgtgggtgtg      120
gctccatgcc acccatgccc cccatcggac cgttcgagcc gggacccatc ggggaagttgg      180

```

accggctgcc	tccaggcggc	actggattaa	tcattgtgta	gatgttgtca	ctggaatttg	240
ttgaatctgc	gggactgggc	ataatgggtg	ttcctggagg	accgccacca	ccaggggggc	300
ccacataggt	accaggtgat	gaggaggagt	atggaattga	gttagcactg	ttaggattgg	360
gccagggtct	gccag					375

<210> 445
 <211> 1561
 <212> DNA
 <213> Homo sapiens

<400> 445						
ccgcggccgg	ggctgacgct	ttgacagctg	gaaagagcgc	ggagccagcg	cctggggggg	60
agggagggga	gcgcggcgag	gagagcgcca	gcgagcgaga	gagcgagcga	gcgcggggga	120
gggggcccgg	agcgaggggc	agctcgggag	agccggagcg	gtagcggcgg	cggcggcggc	180
ggcggcgagg	ctcggcgccc	tcttcctg	aaaccatgtt	tgccaaaggc	aaaggctcgg	240
cggtgccctc	ggatgggcag	gctcgggaaa	agttagcttt	atacgtctac	gaatatattac	300
tgcacgtagg	agcacagaaa	tctgcacaga	ccttcttata	ggagattcga	tgggaaaaaa	360
acatcacgtt	gggagaaccg	cctgggtttt	tgcactcgtg	gtgggtgtgta	ttttgggacc	420
tttactgtgc	agctcctgaa	aggagagaca	cttgtgaaca	ttcaagtga	gcaaaagcct	480
ttcatgatta	tagtgagca	gctgccccga	gccccgtgct	tggcaacatt	ccccccaacg	540
atgggatgcc	gggaggcccc	atcccgccag	gtttctttca	gggtcctccg	gggtcacagc	600
cctcgccgca	cgcacagcct	ccacctcaca	atcctagcag	catgatggga	ccccacagtc	660
agcctccggg	aggagttcct	gggacacagc	cattgctgcc	caattctatg	gatcccacac	720
gacaacaagg	ccacccaac	atgggaggat	caatgcagag	aatgaaccct	ccccgaggca	780
tggggcccat	gggtcccggc	ccacagaatt	acggcagcgg	catgagacca	ccacccaact	840
ccctcgcccc	cgccatgccc	gggattaaca	tgggcccggg	agctggcaga	ccctggccca	900
atcctaacag	tgctaactca	attccatact	cctcctcatc	acctggtacc	tatgtgggac	960
cccctggtgg	tggcggtcct	ccaggaacac	ccattatgcc	cagtcccgca	gattcaacaa	1020
attccagtga	caacatctac	acaatgatta	atccagtgcc	gcctggaggc	agccggtcca	1080
acttcccgat	gggtcccggc	tcggacggtc	cgatgggcgg	catgggtggc	atggagccac	1140
accacatgaa	tggatcatta	gggtcaggcg	acatagacgg	acttccaaaa	aatttctcta	1200
acaacataag	tggcattagc	aatcctccag	gcaccctc	agatgacggc	gagctaggag	1260
ggaacttcct	ccactccttt	cagaacgaca	attattctcc	aagcatgacg	atgagtgtgt	1320
gatccccct	tctccgagac	gctgagagag	caggcattgc	aggcgggaag	atgccagaaa	1380
ttatgcaaga	agtgaggtgt	cattatccag	gagctggtgg	ggagggcatc	tccctgctcc	1440
cctcaacccc	ctcccacccc	atccacgccc	cctacctttc	ccaatttttag	tttcatgcaa	1500
taaaaaggcc	aaacttttta	ttccataaaa	caaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	1560
a						1561

<210> 446
 <211> 368
 <212> PRT
 <213> Homo sapiens

<400> 446															
Met	Phe	Ala	Lys	Gly	Lys	Gly	Ser	Ala	Val	Pro	Ser	Asp	Gly	Gln	Ala
1				5					10					15	
Arg	Glu	Lys	Leu	Ala	Leu	Tyr	Val	Tyr	Glu	Tyr	Leu	Leu	His	Val	Gly
			20					25					30		
Ala	Gln	Lys	Ser	Ala	Gln	Thr	Phe	Leu	Ser	Glu	Ile	Arg	Trp	Glu	Lys
			35				40					45			
Asn	Ile	Thr	Leu	Gly	Glu	Pro	Pro	Gly	Phe	Leu	His	Ser	Trp	Trp	Cys
			50			55					60				
Val	Phe	Trp	Asp	Leu	Tyr	Cys	Ala	Ala	Pro	Glu	Arg	Arg	Asp	Thr	Cys
65					70				75					80	
Glu	His	Ser	Ser	Glu	Ala	Lys	Ala	Phe	His	Asp	Tyr	Ser	Ala	Ala	Ala
				85				90						95	
Ala	Pro	Ser	Pro	Val	Leu	Gly	Asn	Ile	Pro	Pro	Asn	Asp	Gly	Met	Pro
			100				105					110			
Gly	Gly	Pro	Ile	Pro	Pro	Gly	Phe	Gln	Gly	Pro	Pro	Gly	Ser	Gln	
			115				120					125			

Pro	Ser	Pro	His	Ala	Gln	Pro	Pro	Pro	His	Asn	Pro	Ser	Ser	Met	Met
	130					135				140					
Gly	Pro	His	Ser	Gln	Pro	Pro	Gly	Gly	Val	Pro	Gly	Thr	Gln	Pro	Leu
145				150					155						160
Leu	Pro	Asn	Ser	Met	Asp	Pro	Thr	Arg	Gln	Gln	Gly	His	Pro	Asn	Met
			165					170						175	
Gly	Gly	Ser	Met	Gln	Arg	Met	Asn	Pro	Pro	Arg	Gly	Met	Gly	Pro	Met
			180					185					190		
Gly	Pro	Gly	Pro	Gln	Asn	Tyr	Gly	Ser	Gly	Met	Arg	Pro	Pro	Pro	Asn
		195					200				205				
Ser	Leu	Gly	Pro	Ala	Met	Pro	Gly	Ile	Asn	Met	Gly	Pro	Gly	Ala	Gly
	210					215					220				
Arg	Pro	Trp	Pro	Asn	Pro	Asn	Ser	Ala	Asn	Ser	Ile	Pro	Tyr	Ser	Ser
225					230					235					240
Ser	Ser	Pro	Gly	Thr	Tyr	Val	Gly	Pro	Pro	Gly	Gly	Gly	Gly	Pro	Pro
				245					250					255	
Gly	Thr	Pro	Ile	Met	Pro	Ser	Pro	Ala	Asp	Ser	Thr	Asn	Ser	Ser	Asp
			260					265					270		
Asn	Ile	Tyr	Thr	Met	Ile	Asn	Pro	Val	Pro	Pro	Gly	Gly	Ser	Arg	Ser
	275						280					285			
Asn	Phe	Pro	Met	Gly	Pro	Gly	Ser	Asp	Gly	Pro	Met	Gly	Gly	Met	Gly
	290					295					300				
Gly	Met	Glu	Pro	His	His	Met	Asn	Gly	Ser	Leu	Gly	Ser	Gly	Asp	Ile
305					310					315					320
Asp	Gly	Leu	Pro	Lys	Asn	Ser	Pro	Asn	Asn	Ile	Ser	Gly	Ile	Ser	Asn
				325					330					335	
Pro	Pro	Gly	Thr	Pro	Arg	Asp	Asp	Gly	Glu	Leu	Gly	Gly	Asn	Phe	Leu
			340					345					350		
His	Ser	Phe	Gln	Asn	Asp	Asn	Tyr	Ser	Pro	Ser	Met	Thr	Met	Ser	Val
	355						360					365			

<210> 447
 <211> 448
 <212> DNA
 <213> Homo sapiens

<400> 447						
ggagtcgtgg	gccgagagga	accgggccccg	ggaagcgccg	tcgtcgtcgt	cgccggtcgc	60
gttcccccg	agaggcctga	gaagctccgg	gccgcggggcc	tcgtgcccgc	ccagcccgcg	120
gacaggccccg	ggcgcgccctg	gcctgccttt	gtataggccc	gtctgaacgt	gggagcgcag	180
ccgcctgac	ggctgagccc	gaggccccgca	accctgcggc	gtctaccctc	ctccggcgcg	240
gcccctcatc	ccggcgagca	cggcggcggg	gtgggcccag	gattaagaag	gaggcggcgt	300
gggaggagga	agatggcggc	cggcaagagc	ggcggtagcg	caggggagat	tacttttctg	360
gaagctttgg	ctagatcaga	gtctaagaga	gatggagccg	cagaaccagc	acagtggtta	420
gatgataagc	ggccgctcga	ctagttct				448

<210> 448
 <211> 614
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(614)
 <223> n = g, a, c or t

<400> 448						
gggcggtgga	tggggagtcg	tgggcccaga	ggaaccgggc	ccgggaagcg	ccgtcgtcgt	60
cgtcgccggg	cgctttcccc	cggagaggcc	tgagaagctc	gggccgcggg	cctcgtgcc	120
cgccagccccg	cggacaggcc	cgggcgcgcc	tggcctgcct	ttgtataggc	ccgtctgaac	180
gtgggagcgc	agcccgcctg	acggctgagc	ccgaggccccg	caaccctgcg	gcgtctacc	240

tcctccggcg	cggccccctca	tcccggcgag	cacggcgggcg	gtgtggggcca	tggattaaga	300
aggaggcggc	gtgggaggag	gaagatggcg	gccggcaaga	gcggcggtag	cgcaggggag	360
attacttttc	tggaagcttt	ggctagatca	gagtctaaga	gagatggagc	cgcanaacca	420
gcacagtggg	tagatagata	aagcggccgc	tcgactagtc	tgaggctctga	tactcactga	480
ctgtcgaagg	ggcgaattcc	agcacactgg	cggccggttac	tagtggatcc	gagctcggta	540
ccaagcttgg	cgtaatcatg	gtcatagctg	tttcctgttg	tgaaattggt	atccgctcac	600
aattccacac	aaca					614

<210> 449
 <211> 527
 <212> DNA
 <213> Homo sapiens

<400> 449						
atcactagta	acggccgcca	gtgtgctgga	attcgccctt	acgacagtca	gtgagtatca	60
gacctcagac	tagtcgagcg	gccgctttat	ctatctaacc	actgtgctgg	ttctgcggct	120
ccatctctct	tagactctga	tctagccaaa	gcttcagaa	aagtaatctc	ccctgcgcta	180
ccgccgctct	tgccggccgc	catcttctct	ctcccacgcc	gcctccttct	taatccatgg	240
cccacaccgc	cgcctgtgct	gccgggatga	ggggccgcgc	cggaggaggg	tagacgccgc	300
agggttgccg	gcctcgggct	cagccgtcag	gcgggctgcg	ctcccacggt	cagacggggc	360
tatacaaagg	caggccaggc	gcgcccgggc	ctgtccgcgg	gctggcgggc	agcgaggccc	420
gcggcccag	cttctcaggc	ctctccgggg	gaacgcgacc	ggcgacgacg	acgacggcgc	480
ttcccgggcc	cggttcctct	cggcccacga	ctccccatcc	accgccc		527

<210> 450
 <211> 628
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(628)
 <223> n = g, a, c or t

<400> 450						
gggcgggtgga	tggggagtcg	tggggccgaga	ggaaccgggc	ccgggaagcg	ccgtcgtcgt	60
cgctcgccggt	cgcgttcccc	cggagaggcc	tgagaagctc	gggccgcggg	cctcgctgcc	120
cgccagcccc	cggacaggcc	cgggcgcgcc	tggcctgcct	ttgtataggc	ccgtctgaac	180
gtgggagcgc	agcccgcctg	acggctgagc	ccgaggcccc	caacctgcg	gcgtctaccc	240
tcctccggcg	cggccccctca	tcccggcgag	cacggcgggcg	gtgtggggcca	tggattaaga	300
aggaggcggc	gtgggaggag	gaagatggcg	gccggcaaga	gcggcggtag	cgcaggggag	360
attacttttc	tggaagcttt	ggctagatca	gagtctaaga	gagatggagc	cgcagaacca	420
gcacagtggg	tagatagata	aagcggccgc	tcgactagtc	tgaggctctga	tactcactga	480
ctgtcgaagg	gccaattcca	gcacactggc	ggccgttact	agtggatccg	agctcgggtac	540
caagcttggc	gtaatcatgg	tcatagtctg	ttcctgtgtg	aaattgtnat	ccgctcacaa	600
ttccacacaa	catacgagcc	ggaagcat				628

<210> 451
 <211> 529
 <212> DNA
 <213> Homo sapiens

<400> 451						
cggatcacta	gtaacggccg	ccagtgtgct	ggaattcgcc	cttcgacagt	cagtgagtat	60
cagacctcag	actagtcgag	cggccgcttt	atctatctaa	ccactgtgct	ggttctgcgg	120
ctccatctct	cttagactct	gatctagcca	aagcttccag	aaaagtaatc	tcctctgcgc	180
taccgccgct	cttgccggcc	gccatcttcc	tcctcccacg	ccgcctcctt	cttaatccat	240
ggccccacacc	gccgccgtgc	tcgccgggat	gaggggcccgc	gccggaggag	ggtagacgcc	300
gcagggttgc	gggcctcggg	ctcagccgtc	aggcgggctg	cgtccccacg	ttcagacggg	360
cctatacaaa	ggcaggccag	gcgcgccggg	gcctgtccgc	gggctggcgg	gcagcgaggc	420

ccgcggcccg	agcttctcag	gcctctccgg	gggaacgcga	ccggcgacga	cgacgacggc	480
gcttcccggg	cccggttcct	ctcggcccac	gactccccat	ccaccgccc		529

<210> 452
 <211> 575
 <212> DNA
 <213> Homo sapiens

<400> 452						
gggcggtgga	tggggagtcg	tggggccgaga	ggaaccgggc	ccgggaagcg	ccgtcgtcgt	60
cgtcgccggg	cgcgttcccc	cggagaggcc	tgagaagctc	gggccgcggg	cctcgctgcc	120
cgccagcccc	cggacaggcc	cgggcgcgcc	tggcctgcct	ttgtataggc	ccgtctgaac	180
gtgggagcgc	agcccgccctg	acggctgagc	ccgaggcccc	caaccctgcg	gcgtctaccc	240
tcctccggcg	cggccccctca	tcccggcgag	cacggcggcg	gtgtgggcca	tggattaaga	300
aggaggcggc	gtgggaggag	gaagatggcg	gccggcaaga	gcggcggtag	cgcaggggag	360
attacttttc	tggaagcttt	ggctagatca	gagtcctaaga	gagatggagc	cgcagaacca	420
gcacagtggg	tagatagata	aagcggccgc	tcgactagtc	tgaggctctga	tactcactga	480
ctgtcgtaag	ggcgaattcc	agcacactgg	cggccgttac	tagtggatcc	gagctcggta	540
ccaagcttgg	cgtaatcatg	gtcatagctg	tttcc			575

<210> 453
 <211> 533
 <212> DNA
 <213> Homo sapiens

<400> 453						
gctcggatca	ctagtaacgg	ccgccagtgt	gctggaattc	gcccttacga	cagtcagtga	60
gtatcagacc	tcagactagt	cgagcggccg	ctttatctat	ctaaccactg	tgctggttct	120
gcggctccat	ctctcttaga	ctctgatcta	gccaaagctt	ccagaaaagt	aatctcccct	180
gcgctaccgc	cgctcttgcc	ggccgccatc	ttcctcctcc	cacgcgcgct	ccttcttaat	240
ccatggccca	caccgccgcc	gtgctcgccg	ggatgagggg	ccgcgccgga	ggagggtaga	300
cgcgcgaggg	ttgcgggcct	cgggctcagc	cgtcaggcgg	gctgcgctcc	cacgttcaga	360
cgggcctata	caaaggcagg	ccaggcgcgc	ccgggcctgt	ccgcgggctg	gcgggcagcg	420
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<210> 454
 <211> 594
 <212> DNA
 <213> Homo sapiens

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 <211> 528
 <212> DNA
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<211> 4210

<212> DNA

<213> Homo sapiens

<400> 456

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<210> 457
 <211> 1112
 <212> PRT
 <213> Homo sapiens

<400> 457

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<212> DNA

<213> Homo sapiens

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<223> n = g, a, c or t

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<210> 459

<211> 700

<212> DNA

<213> Homo sapiens

<220>

<221> modified_base

<222> (1)...(700)

<223> n = g, a, c or t

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<400> 459
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tgaggacgta atctttccaa tttacatcac atatgtttac acctggaggt ggctgaaatg      120
atgcctcatt caacctgaat ggataaccaa aagtagctgt aacagtttta ttctcagtaa      180
ctgcaggagg acaattcact tgaatttctg tttggccctt aaaacctcca caggtggcaa      240
aagcaaagat agaagcaatc cactcgagga ccttgatgaa gccgagtggc tccttgagcg      300
ggttgaggtt gatctggaag ccgccgcagg acccagcgca gtggttagat agataaagcg      360
accgctcgac tagtctgagg tctgatactc actgactgtc gtaagggcga attcgtttaa      420
acctgcagga ctagtccctt tantgagggt taattctgag cttggcgtaa tcatggtcac      480
agctgtttcc tgtgtgaaat tgttatccgc tcacaattcc acacaacata cgagccggaa      540
gcataaagtg taaagcctgg ggtgccttaa tgagttgagc taactcacat ttaatttgcg      600
tttgcgctca cttggggccgc tttccagggt cggggaaaaa ctgtcgtgcc cagttgctta      660
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<210> 460

<211> 445

<212> DNA

<213> Homo sapiens

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<400> 460
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atgcctcatt caacctgaat ggataaccaa aagtagctgt aacagtttta ttctcagtaa      180
ctgcaggagg acaattcact tgaatttctg tttggccctt aaaacctcca caggtggcaa      240
aagcaaagat agaagcaatc cactcgagga ccttgatgaa gccgagtggc tccttgagcg      300
ggttgaggtt gatctggaag ccgccgcagg acccagcaca gtggttagat agataaagcg      360
ccgctcgac tagtctgagg tctgatactc actgactgtc gtaagggcga attcgcgggc      420
gctaaattca attcgcccta tagtg

```

<210> 461

<211> 710

<212> DNA

<213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(710)
 <223> n = g, a, c or t

<400> 461

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atgcctcatt	caacctgaat	ggataaccaa	aagtagctgt	aacagtttta	ttctcagtaa	180
ctgcaggagg	acaattcact	tgaattttctg	tttggccctt	aaaacctcca	caggtggcaa	240
aagcaaagat	agaagcaatc	cactcgagga	ccttgatgaa	gccgagtggc	tccttgagcg	300
ggttgagggt	gatctggaag	cgcgcgcagg	accagcacca	gtgggttagat	agataaagcg	360
gccgctcgac	tagtctgagg	tctgatactc	actgactgtc	gtaagggcga	attcgcgggc	420
gctaaattca	attcgcccta	tagtgagtcg	tattacaatt	cactggccgt	cgttttacaa	480
cgctgtgact	gggaaaaccc	tggcgttacc	caacttaate	gccttgccgc	acatccccct	540
ttgccagact	ggcgtaatag	cgaagaggcc	cgaccgatcg	cccttcccaa	cagttgcgca	600
gcctatacgt	acggcagttt	aagggttttac	nacctattaa	aagagagagc	ccgggtatcgt	660
ctgttggtgga	tgtncagagt	gatattttatt	tggaaacccg	gggaaagaat		710

<210> 462
 <211> 2130
 <212> DNA
 <213> Homo sapiens

<400> 462

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aaggagccac	tcggcttcat	caaggctctc	gagtggattg	cttctatctt	tgcttttgcc	180
acctgtggag	gttttaaggg	ccaaacagaa	attcaagtga	attgtcctcc	tgcagttact	240
gagaataaaa	ctgttacagc	tacttttggt	tatccattca	ggttgaatga	ggcatcattt	300
cagccacctc	caggtgtaaa	catatgtgat	gtaaattgga	aagattacgt	cctcataggc	360
gattactctt	cttctgcaca	attctatggt	acctttgcag	tctttgtgtt	cctgtactgc	420
attgctgccc	ttctgcttta	tgttggtctac	acgagtctgt	atctggatag	tcgtaaactt	480
cctatgatag	actttgttgt	tacacttggt	gccacttttt	tgtggttggt	gagcacttca	540
gcctgggcta	aagctctgac	agatattaaa	atagctactg	gtcacaatat	tattgatgaa	600
cttccgcctt	gtaagaagaa	agcagtactg	tgttactttg	gctctgtgac	cagtatggga	660
tccttaaagt	tatctgtgat	atttggtctt	ctaaatatga	tactctgggg	aggaaatgct	720
tggtttgtgt	acaaggagac	cagcctacac	agtcacatca	atacatctgc	ccctcatagc	780
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aagtaatggc	tttgtcaata	tattggtggg	tttaaaactt	tgtctgtttt	ttacataaag	960
cctgtgcctt	tcctagaaaag	ttaagatgta	aatgtattct	cacatgtaaa	tttgaaagtt	1020
caggggctta	ttatgaaaatg	gattacacat	tttaaatgaa	cccataattt	ttttcactaa	1080
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aagtttgtac	agatcatata	cctaccacct	gtctttgctt	aaagagcctt	gattacataa	1260
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aaaaaaatta	agattgcttt	ccatgtttga	aattttaccat	tgagagtcaa	tgaagttgct	1740
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tgaggatat	gatgagtgt	ttgtctttgc	acacacatat	aggtatatct	tgaatacaag	1920
cttattcatt	ttgcttccta	atctttttgt	tgtacaggga	ttcagggttt	ttattcttac	1980
aacatgattg	tttatatgtg	aagcacatct	tgctgttgcc	ttatttttga	tgtttttatt	2040
catgacaaga	attgtcaata	taagaatgta	tatctttgcc	gcaaccaatt	taataaagga	2100
gttgaaagaa	aaaaaaaaaa	aaaaaaaaaa				2130

<210> 463
 <211> 259
 <212> PRT
 <213> Homo sapiens

<400> 463
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 Gln Arg Met Ser Gly Phe Gln Ile Asn Leu Asn Pro Leu Lys Glu Pro
 20 25 30
 Leu Gly Phe Ile Lys Val Leu Glu Trp Ile Ala Ser Ile Phe Ala Phe
 35 40 45
 Ala Thr Cys Gly Gly Phe Lys Gly Gln Thr Glu Ile Gln Val Asn Cys
 50 55 60
 Pro Pro Ala Val Thr Glu Asn Lys Thr Val Thr Ala Thr Phe Gly Tyr
 65 70 75 80
 Pro Phe Arg Leu Asn Glu Ala Ser Phe Gln Pro Pro Pro Gly Val Asn
 85 90 95
 Ile Cys Asp Val Asn Trp Lys Asp Tyr Val Leu Ile Gly Asp Tyr Ser
 100 105 110
 Ser Ser Ala Gln Phe Tyr Val Thr Phe Ala Val Phe Val Phe Leu Tyr
 115 120 125
 Cys Ile Ala Ala Leu Leu Leu Tyr Val Gly Tyr Thr Ser Leu Tyr Leu
 130 135 140
 Asp Ser Arg Lys Leu Pro Met Ile Asp Phe Val Val Thr Leu Val Ala
 145 150 155 160
 Thr Phe Leu Trp Leu Val Ser Thr Ser Ala Trp Ala Lys Ala Leu Thr
 165 170 175
 Asp Ile Lys Ile Ala Thr Gly His Asn Ile Ile Asp Glu Leu Pro Pro
 180 185 190
 Cys Lys Lys Lys Ala Val Leu Cys Tyr Phe Gly Ser Val Thr Ser Met
 195 200 205
 Gly Ser Leu Asn Val Ser Val Ile Phe Gly Phe Leu Asn Met Ile Leu
 210 215 220
 Trp Gly Gly Asn Ala Trp Phe Val Tyr Lys Glu Thr Ser Leu His Ser
 225 230 235 240
 Pro Ser Asn Thr Ser Ala Pro His Ser Gln Gly Gly Ile Pro Pro Pro
 245 250 255
 Thr Gly Ile

<210> 464
 <211> 165
 <212> DNA
 <213> Homo sapiens

<400> 464
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 aggaggacac tggtagagct ggagcagcct ttgttcctga ggatgtcttc tgggtgtggtt 120
 ccaaagacaa acctcacatt ctgcagcacc ccctggaaaa tgtca 165

<210> 465
 <211> 166
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(166)
 <223> n = g, a, c or t

<400> 465
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 acgtggtgaa tggttccagc cctggcatcc gnactaacta cattgg 166

<210> 466
 <211> 165
 <212> DNA
 <213> Homo sapiens

<400> 466
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 catcctcagg aacaaaggct gctccagctc taccagtgtc ctcctcacc cttgacaaca 120
 cgtggtgaat ggttccagcc ctgccatccg cactaactac attgg 165

<210> 467
 <211> 160
 <212> DNA
 <213> Homo sapiens

<400> 467
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 ggtgaatggt tccagcctgg catccgacta actacattgg 160

<210> 468
 <211> 164
 <212> DNA
 <213> Homo sapiens

<400> 468
 tgacattttc caggggtgct gcagaatgtg aggtttgtct ttggaaccac accagaagac 60
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 gtggtgaatg gttccagccc tgccatccgc actaactaca ttgg 164

<210> 469
 <211> 165
 <212> DNA
 <213> Homo sapiens

<400> 469
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 cgtggtgaat ggttccagcc ctgccatccg cactaactac attgg 165

<210> 470
 <211> 165
 <212> DNA
 <213> Homo sapiens

<400> 470
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 cgtggtgaat ggttccagcc ctgccatccg cactaactac attgg 165

<210> 471
 <211> 164
 <212> DNA
 <213> Homo sapiens

<400> 471
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gtggtgaatg gttccagccc tgccatccgc actaactaca ttgg 164

<210> 472
<211> 165
<212> DNA
<213> Homo sapiens

<400> 472
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cgtggtgaat ggttccagcc ctgcatccgc cactaactac attgg 165

<210> 473
<211> 165
<212> DNA
<213> Homo sapiens

<400> 473
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cgtggtgaat ggttccagcc ctgcatccgc cactaactac attgg 165

<210> 474
<211> 104
<212> DNA
<213> Homo sapiens

<400> 474
tgacattttc caggggtgct gcagaatgtg aggtttgtct ttggaaccac accagaagac 60
atcctcagga acaaaggctg tccagctcta cagcgtcctc ctca 104

<210> 475
<211> 162
<212> DNA
<213> Homo sapiens

<400> 475
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cctcaggaac aaaggctgct ccagctctac cagtgtcctc ctcacccttg acaacaacgt 120
ggtgaatggt tccagccctg ccattccgcac taactacatt gg 162

<210> 476
<211> 165
<212> DNA
<213> Homo sapiens

<400> 476
cgacattttc caggggtgct tgcagaatgt gaggtttgtc tttggaacca caccagaaga 60
catcctcagg aacaaaggct gttccagctc taccagtgtc ctcctcacc ttgacaacaa 120
cgtggtgaat ggttccagcc ctgcatccgc cactaactac attgg 165

<210> 477
<211> 164
<212> DNA
<213> Homo sapiens

<400> 477
tgacattttc caggggtgct gcagaatgtg aggtttgtct ttggaaccac accagaagac 60

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gtggtgaatg gttccagccc tgccatccgc actaactaca ttgg	164

<210> 478
 <211> 168
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(168)
 <223> n = g, a, c or t

<400> 478	
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aacgatgggtg aatgggtcca gccctgncat ccgcactaac tacattgg	168

<210> 479
 <211> 165
 <212> DNA
 <213> Homo sapiens

<400> 479	
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aggaggacac tggtagagct ggagcagcct ttgttcctga ggatgtcttc tgggtgtggtt	120
ccaaagacaa acctcacatt ctgcagcacc ccctggaaaa tgtca	165

<210> 480
 <211> 164
 <212> DNA
 <213> Homo sapiens

<400> 480	
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atcctcagga acaaaggctg ctccagctct accagtgtcc tcctcaccct tgacaacaac	120
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<210> 481
 <211> 5722
 <212> DNA
 <213> Homo sapiens

<400> 481	
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gaagacatcc tcaggaacaa aggtgtctcc agctctacca gtgtcctcct cacccttgac	840
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ctcaggggccc tgcgcacat tgtgaccacg ctgcaggaca gcacccgcaa agtgactgaa	1020

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gatcaggcag	acacagacaa	caatggggaa	ggagacgcct	gtgctgcaga	cattgatgga	2520
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aaagttgtaa	actccaccac	agggcctggc	gagcacctgc	ggaacgccct	gtggcacaca	3360
ggaaacaccc	ctggccaggt	gcgcacccctg	tggcatgacc	ctcgtcacat	aggctggaaa	3420
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gtgatgtatg	aagggaagaa	aatcatggct	gactcaggac	ccatctatga	taaaacctat	3540
gctgggtgga	gactaggggt	gtttgtcttc	tctcaagaaa	tgggtgtctt	ctctgacctg	3600
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<210> 482
<211> 1170
<212> PRT
<213> Homo sapiens

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Ile Phe Glu Leu Thr Gly Ala Ala Arg Lys Gly Ser Gly Arg Arg Leu
 35          40          45
Val Lys Gly Pro Asp Pro Ser Ser Pro Ala Phe Arg Ile Glu Asp Ala
 50          55          60
Asn Leu Ile Pro Pro Val Pro Asp Asp Lys Phe Gln Asp Leu Val Asp
 65          70          75          80
Ala Val Arg Ala Glu Lys Gly Phe Leu Leu Leu Ala Ser Leu Arg Gln
 85          90          95
Met Lys Lys Thr Arg Gly Thr Leu Leu Ala Leu Glu Arg Lys Asp His
100          105          110
Ser Gly Gln Val Phe Ser Val Val Ser Asn Gly Lys Ala Gly Thr Leu
115          120          125
Asp Leu Ser Leu Thr Val Gln Gly Lys Gln His Val Val Ser Val Glu
130          135          140
Glu Ala Leu Leu Ala Thr Gly Gln Trp Lys Ser Ile Thr Leu Phe Val
145          150          155          160
Gln Glu Asp Arg Ala Gln Leu Tyr Ile Asp Cys Glu Lys Met Glu Asn
165          170          175
Ala Glu Leu Asp Val Pro Ile Gln Ser Val Phe Thr Arg Asp Leu Ala
180          185          190
Ser Ile Ala Arg Leu Arg Ile Ala Lys Gly Gly Val Asn Asp Asn Phe
195          200          205
Gln Gly Val Leu Gln Asn Val Arg Phe Val Phe Gly Thr Thr Pro Glu
210          215          220
Asp Ile Leu Arg Asn Lys Gly Cys Ser Ser Ser Thr Ser Val Leu Leu
225          230          235          240
Thr Leu Asp Asn Asn Val Val Asn Gly Ser Ser Pro Ala Ile Arg Thr
245          250          255
Asn Tyr Ile Gly His Lys Thr Lys Asp Leu Gln Ala Ile Cys Gly Ile
260          265          270
Ser Cys Asp Glu Leu Ser Ser Met Val Leu Glu Leu Arg Gly Leu Arg
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Lys	Asp	Cys	Val	Gly	Asp	Val	Thr	Glu	Asn	Gln	Ile	Cys	Asn	Lys	Gln	
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Asp	Cys	Pro	Ile	Asp	Gly	Cys	Leu	Ser	Asn	Pro	Cys	Phe	Ala	Gly	Val	
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Lys	Glu	Val	Pro	Asp	Ala	Cys	Phe	Asn	His	Asn	Gly	Glu	His	Arg	Cys	
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Cys	Asn	Lys	Asn	Ala	Lys	Cys	Asn	Tyr	Leu	Gly	His	Tyr	Ser	Asp	Pro	
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		675					680					685				
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705					710					715					720	
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				725					730						735	
Ala	Cys	Asp	Asp	Asp	Asp	Asp	Asn	Asp	Lys	Ile	Pro	Asp	Asp	Arg	Asp	
			740					745						750		
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		755					760					765				

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Ile	Asp	Gly	Asp	Gly	Ile	Leu	Asn	Glu	Arg	Asp	Asn	Cys	Gln	Tyr	Val
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Tyr	Asn	Val	Asp	Gln	Arg	Asp	Thr	Asp	Met	Asp	Gly	Val	Gly	Asp	Gln
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Cys	Asp	Asn	Cys	Pro	Leu	Glu	His	Asn	Pro	Asp	Gln	Leu	Asp	Ser	Asp
			835					840				845			
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			915				920						925		
Ala	Cys	Lys	Asp	Asp	Phe	Asp	His	Asp	Ser	Val	Pro	Asp	Ile	Asp	Asp
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Trp	Val	Val	Arg	His	Gln	Gly	Lys	Glu	Leu	Val	Gln	Thr	Val	Asn	Cys
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Gly	Glu	His	Leu	Arg	Asn	Ala	Leu	Trp	His	Thr	Gly	Asn	Thr	Pro	Gly
		1075					1080					1085			
Gln	Val	Arg	Thr	Leu	Trp	His	Asp	Pro	Arg	His	Ile	Gly	Trp	Lys	Asp
1090					1095						1100				
Phe	Thr	Ala	Tyr	Arg	Trp	Arg	Leu	Ser	His	Arg	Pro	Lys	Thr	Gly	Phe
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Ile	Arg	Val	Val	Met	Tyr	Glu	Gly	Lys	Lys	Ile	Met	Ala	Asp	Ser	Gly
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Pro	Ile	Tyr	Asp	Lys	Thr	Tyr	Ala	Gly	Gly	Arg	Leu	Gly	Leu	Phe	Val
			1140					1145					1150		
Phe	Ser	Gln	Glu	Met	Val	Phe	Phe	Ser	Asp	Leu	Lys	Tyr	Glu	Cys	Arg
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 <212> DNA
 <213> Homo sapiens

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 <212> DNA
 <213> Homo sapiens

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 <211> 199
 <212> PRT
 <213> Homo sapiens

<400> 485

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Trp	Ile	Thr	Thr	Gln	Cys	Arg	Lys	Asp	Val	Gly	Arg	Pro	Gln	Pro	Gly
			35				40					45			
Arg	Glu	Asn	Phe	Gln	Asn	Trp	Leu	Lys	Asp	Gly	Thr	Val	Leu	Cys	Glu
			50			55				60					
Leu	Ile	Asn	Ala	Leu	Tyr	Pro	Glu	Gly	Gln	Ala	Pro	Val	Lys	Lys	Ile
65					70					75				80	
Gln	Ala	Ser	Thr	Met	Ala	Phe	Lys	Gln	Met	Glu	Gln	Ile	Ser	Gln	Phe
			85					90						95	
Leu	Gln	Ala	Ala	Glu	Arg	Tyr	Gly	Ile	Asn	Thr	Thr	Asp	Ile	Phe	Gln
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Thr	Val	Asp	Leu	Trp	Glu	Gly	Lys	Asn	Met	Ala	Cys	Val	Gln	Arg	Thr
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Leu	Met	Asn	Leu	Gly	Gly	Leu	Ala	Val	Ala	Arg	Asp	Asp	Gly	Leu	Phe
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Ser	Gly	Asp	Pro	Asn	Trp	Phe	Pro	Lys	Lys	Ser	Lys	Glu	Asn	Pro	Arg
145					150					155				160	
Asn	Phe	Ser	Asp	Asn	Gln	Leu	Gln	Glu	Gly	Lys	Asn	Val	Ile	Gly	Leu
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<213> Homo sapiens

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ctcctttccc aatgatattc ttgtgaaact gtttgaagat cggaacagaa attgaatagc 180
tattttccac cagatctgcc accatcttct gcatgtattt tgtgcatttt tccacctcat 240
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<210> 487
<211> 283
<212> DNA
<213> Homo sapiens

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tccgatcttc aaacagtttc acaagaatat cattgggaaa ggaggcgcaa acattaaaaa 180
gattcgtgaa gaaagcaaca ccaaaatcga ccttcagca gagaatagca attcagagac 240
cattatcatc acaggcaagc gagccaactg cgaagctgcc cgg 283

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<211> 431
<212> DNA
<213> Homo sapiens

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gttccgattc ttcaaacagt ttcaaaagaa tatcattggg aaaggaggcg caaacgattc 180
aagaaagatt cgtgaagaaa gcaacaccaa aatcgacctt ccagcagaga atagcaattt 240
cagagaccat tatcagtcac aggcaagcga gccaaactgc aagggttgcc ctggtccgct 300
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gatccgagct c 431

<210> 489
<211> 283
<212> DNA
<213> Homo sapiens

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tcctttccca atgatattct tgtgaaactg tttgaagatc ggaacagaaa ttgaatagct 180
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<211> 438
<212> DNA
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tccgatcttc aaacagtttc acaagaatat cattgggaaa ggaggcgcaa acattaaaaa 180
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<211> 283
<212> DNA
<213> Homo sapiens

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<210> 492
<211> 284
<212> DNA
<213> Homo sapiens

<400> 492
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tccgatcttc aaacagtttc acaagaatat cattgggaaa ggaggcgcaa acattaaaaa 180
gattcgtgaa gaaagcaaca ccaaaatcga ccttcagca gagaatagca agttcagaga 240
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<210> 493
<211> 4354
<212> DNA
<213> Homo sapiens

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<211> 1268

<212> PRT

<213> Homo sapiens

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<210> 497

<211> 466

<212> PRT

<213> Homo sapiens

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Gln Asp Ser Val Asp Phe Ser Leu Ala Asp Ala Ile Asn Thr Glu Phe
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Lys Asn Thr Arg Thr Asn Glu Lys Val Glu Leu Gln Glu Leu Asn Asp
          100          105          110
Arg Phe Ala Asn Tyr Ile Asp Lys Val Arg Phe Leu Glu Gln Gln Asn
          115          120          125
Lys Ile Leu Leu Ala Glu Leu Glu Gln Leu Lys Gly Gln Gly Lys Ser
          130          135          140
Arg Leu Gly Asp Leu Tyr Glu Glu Glu Met Arg Glu Leu Arg Arg Gln
145          150          155          160
Val Asp Gln Leu Thr Asn Asp Lys Ala Arg Val Glu Val Glu Arg Asp
          165          170          175

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Asn Leu Ala Glu Asp Ile Met Arg Leu Arg Glu Lys Leu Gln Glu Glu
 180 185 190
 Met Leu Gln Arg Glu Glu Ala Glu Asn Thr Leu Gln Ser Phe Arg Gln
 195 200 205
 Asp Val Asp Asn Ala Ser Leu Ala Arg Leu Asp Leu Glu Arg Lys Val
 210 215 220
 Glu Ser Leu Gln Glu Glu Ile Ala Phe Leu Lys Lys Leu His Glu Glu
 225 230 235 240
 Glu Ile Gln Glu Leu Gln Ala Gln Ile Gln Glu Gln His Val Gln Ile
 245 250 255
 Asp Val Asp Val Ser Lys Pro Asp Leu Thr Ala Ala Leu Arg Asp Val
 260 265 270
 Arg Gln Gln Tyr Glu Ser Val Ala Ala Lys Asn Leu Gln Glu Ala Glu
 275 280 285
 Glu Trp Tyr Lys Ser Lys Phe Ala Asp Leu Ser Glu Ala Ala Asn Arg
 290 295 300
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 Arg Gln Val Gln Ser Leu Thr Cys Glu Val Asp Ala Leu Lys Gly Thr
 325 330 335
 Asn Glu Ser Leu Glu Arg Gln Met Arg Glu Met Glu Glu Asn Phe Ala
 340 345 350
 Val Glu Ala Ala Asn Tyr Gln Asp Thr Ile Gly Arg Leu Gln Asp Glu
 355 360 365
 Ile Gln Asn Met Lys Glu Glu Met Ala Arg His Leu Arg Glu Tyr Gln
 370 375 380
 Asp Leu Leu Asn Val Lys Met Ala Leu Asp Ile Glu Ile Ala Thr Tyr
 385 390 395 400
 Arg Lys Leu Leu Glu Gly Glu Glu Ser Arg Ile Ser Leu Pro Leu Pro
 405 410 415
 Asn Phe Ser Ser Leu Asn Leu Arg Glu Thr Asn Leu Asp Ser Leu Pro
 420 425 430
 Leu Val Asp Thr His Ser Lys Arg Thr Phe Leu Ile Lys Thr Val Glu
 435 440 445
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 Leu Glu
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<210> 498

<211> 1839

<212> DNA

<213> Homo sapiens

<400> 498

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tttttaaaag	gtattttgaa	taccattaaa	actgcttttt	tttttccagc	aagtatccaa	1800
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<210> 499
 <211> 466
 <212> PRT
 <213> Homo sapiens

<400> 499

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			20					25					30		
Thr	Ser	Thr	Arg	Thr	Tyr	Ser	Leu	Gly	Ser	Ala	Leu	Arg	Pro	Ser	Thr
			35				40					45			
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			50			55					60				
Ser	Ser	Ala	Val	Arg	Leu	Arg	Ser	Ser	Val	Pro	Gly	Val	Arg	Leu	Leu
65					70					75					80
Gln	Asp	Ser	Val	Asp	Phe	Ser	Leu	Ala	Asp	Ala	Ile	Asn	Thr	Glu	Phe
				85					90					95	
Lys	Asn	Thr	Arg	Thr	Asn	Glu	Lys	Val	Glu	Leu	Gln	Glu	Leu	Asn	Asp
			100					105					110		
Arg	Phe	Ala	Asn	Tyr	Ile	Asp	Lys	Val	Arg	Phe	Leu	Glu	Gln	Gln	Asn
			115				120					125			
Lys	Ile	Leu	Leu	Ala	Glu	Leu	Glu	Gln	Leu	Lys	Gly	Gln	Gly	Lys	Ser
			130			135					140				
Arg	Leu	Gly	Asp	Leu	Tyr	Glu	Glu	Glu	Met	Arg	Glu	Leu	Arg	Arg	Gln
145					150					155					160
Val	Asp	Gln	Leu	Thr	Asn	Asp	Lys	Ala	Arg	Val	Glu	Val	Glu	Arg	Asp
				165					170					175	
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			180					185					190		
Met	Leu	Gln	Arg	Glu	Glu	Ala	Glu	Asn	Thr	Leu	Gln	Ser	Phe	Arg	Gln
			195				200					205			
Asp	Val	Asp	Asn	Ala	Ser	Leu	Ala	Arg	Leu	Asp	Leu	Glu	Arg	Lys	Val
			210			215					220				
Glu	Ser	Leu	Gln	Glu	Glu	Ile	Ala	Phe	Leu	Lys	Lys	Leu	His	Glu	Glu
225					230					235					240
Glu	Ile	Gln	Glu	Leu	Gln	Ala	Gln	Ile	Gln	Glu	Gln	His	Val	Gln	Ile
				245					250					255	
Asp	Val	Asp	Val	Ser	Lys	Pro	Asp	Leu	Thr	Ala	Ala	Leu	Arg	Asp	Val
			260					265					270		
Arg	Gln	Gln	Tyr	Glu	Ser	Val	Ala	Lys	Asn	Leu	Gln	Glu	Ala	Glu	
			275			280					285				
Glu	Trp	Tyr	Lys	Ser	Lys	Phe	Ala	Asp	Leu	Ser	Glu	Ala	Ala	Asn	Arg
			290			295					300				

Asn Asn Asp Ala Leu Arg Gln Ala Lys Gln Glu Ser Thr Glu Tyr Arg
 305 310 315 320
 Arg Gln Val Gln Ser Leu Thr Cys Glu Val Asp Ala Leu Lys Gly Thr
 325 330 335
 Asn Glu Ser Leu Glu Arg Gln Met Arg Glu Met Glu Glu Asn Phe Ala
 340 345 350
 Val Glu Ala Ala Asn Tyr Gln Asp Thr Ile Gly Arg Leu Gln Asp Glu
 355 360 365
 Ile Gln Asn Met Lys Glu Glu Met Ala Arg His Leu Arg Glu Tyr Gln
 370 375 380
 Asp Leu Leu Asn Val Lys Met Ala Leu Asp Ile Glu Ile Ala Thr Tyr
 385 390 395 400
 Arg Lys Leu Leu Glu Gly Glu Glu Ser Arg Ile Ser Leu Pro Leu Pro
 405 410 415
 Asn Phe Ser Ser Leu Asn Leu Arg Glu Thr Asn Leu Asp Ser Leu Pro
 420 425 430
 Leu Val Asp Thr His Ser Lys Arg Thr Leu Leu Ile Lys Thr Val Glu
 435 440 445
 Thr Arg Asp Gly Gln Val Ile Asn Glu Thr Ser Gln His His Asp Asp
 450 455 460
 Leu Glu
 465

<210> 500
 <211> 619
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(619)
 <223> n = g, a, c or t

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 gaaattcggg acgttccctg ggaaattacg ttgccccggg gtgagtcggg ctccatggca 180
 acttgagagc cagccaggac tggggctggg ngagccgtgc tggacaactt cgctagggag 240
 gagacgacgt gaaccacccg ggccacattc ctcccttccc gcagagaaacn cttgaacgct 300
 cccagtagtc ttgccagaag cgggaacgca ccacggccag cccatatttc acgctcggag 360
 ccnccacccc accttcgaaa ggcccttcca ctggtaacat tgacttctcc aacccccctac 420
 ggaaggctac aacaaggggc cgattttccg ctttctccca acagcctcgc cttgttggtc 480
 cnatttttcc ccttgccctc ccagaccgga aatttcccn cgcgaaaaat tacgagaggg 540
 gtcttggcct atttgaaagg cnggggcagg naccccaatt tttcccagcg cccctgtnat 600
 tttgagnaac ccacggaaa 619

<210> 501
 <211> 508
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(508)
 <223> n = g, a, c or t

<400> 501
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 tcatgcagca gtgcgacgat ggctggtttg tgggtgtctc ccggaggacc cagaaattcg 120
 gaacgttccc tggaaattac gttgccccgg tgtgagtggg ctccatggca acttgagacc 180
 agccaggatg ggggtggggag cgggtggcact cgtggggagg agaggacccc cgccacatcc 240

ccttcccagg	acctgagctc	ccagcatctg	cagacgaccc	cacggcagac	cttttccttc	300
gggaaccacc	acacactcga	aagncccccct	gggactgagt	tcccaaacca	ggactcacag	360
ggcagttccc	gtccgcaacg	aggtcccgtt	tttcaacttt	gtccttcncc	caacacaccg	420
aacatccccc	aagaagtacc	agggaggtcc	tgcatnttgg	aagccgggag	aacacnagtt	480
tatccagggg	ccgtataatt	ngaggana				508

<210> 502
 <211> 411
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(411)
 <223> n = g, a, c or t

<400> 502						
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gaacgttccc	tggaaattac	gttgcccccg	tgtgagtggg	ctccatggca	acttggagcc	180
agccaggatg	gggtgggggag	cgggtggcact	cgtgggaggg	agaggacccc	cgccacatcc	240
tccttcccca	ggacctgagc	tcccagcatc	tgcagaaact	gaaaaccccc	cgggcaaggg	300
ccccttttcc	cccttcgggg	ggaaccccnc	accacatata	ggnaaagana	acccatgnga	360
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<210> 503
 <211> 378
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(378)
 <223> n = g, a, c or t

<400> 503						
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gaacgttccc	tggaaattac	gttgcccccg	tgtgagtggg	ctccatggca	acttggagcc	180
agccaggatg	gggtgggggag	cgggtggcact	cgtgggaggg	agaggacccc	cgccacatcc	240
tccttcccca	ggacctgagc	tcccagcatc	tgcagacgan	ccccgcagcc	tttccctcgg	300
accacacaca	ctacgaaagn	ncacccacag	gaccggagaa	ccaaacaaaa	gaaacgtcaa	360
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<210> 504
 <211> 821
 <212> DNA
 <213> Homo sapiens

<220>
 <221> modified_base
 <222> (1)...(821)
 <223> n = g, a, c or t

<400> 504						
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tctgcagaat	tgcgcccttc	ctcggcatgg	acgagctgta	caaggaggag	gccgccaaagg	120
ccggtggcag	cgggtggctcc	agtgtgctgg	gttcttgctg	cttgggggtct	ggtctcaata	180
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ggaaatgaaa	gggctgtggg	aggaatgcct	gtgagtcgtg	ggtgggaatc	agtcacagggg	300
gcttcgaggg	gggtccgagg	gaaaggctgc	gggggggtcgt	actgcagatg	ctgggagctc	360

aggtcctggg	gaaggaggat	gttggggcggg	ggteectctcc	ctcccacgag	tgccaccgtc	420
cccacccatc	ctggctggct	ccaagtttgc	catggagacc	actcacaccg	gggcaacgta	480
attttccagg	gaacgttccg	aatttctggg	tcctccggga	gaacacccac	aaaaccagca	540
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tacgttctgg	ggcccttgta	cttgggtccg	ggcagaaacc	ccagcacaaa	gatgggggta	660
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cctgaataac	ncaaacttgg	aactggatcn	gngacaaagg	gcggccgaaa	atntatcccc	780
agcgnccaac	aacnatggag	acggggcccg	taccaaagat	g		821

<210> 505
 <211> 356
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(356)
 <223> n = g, a, c or t

<400> 505						
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gaacgttccc	tggaaattac	gttgcccccg	tgtgagtggg	ctccatggca	acttggagcc	180
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ctccttcccc	aggacctgag	ctcccagcat	ctgcagacga	accccgcagc	ctttccctcg	300
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<210> 506
 <211> 340
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> modified_base
 <222> (1)...(340)
 <223> n = g, a, c or t

<400> 506						
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ggtgggaatc	agtccagggg	gcttcgaggg	gggtccgagg	gaaaggctgc	gggggtcgtc	180
tgcagatnct	gggagctcag	gtcctgggga	aggaggatgt	gggcgggggt	cctctccctc	240
ccacgagtgc	caccgtcccc	accccatcct	ggctggctcc	aagttgccat	ggagaccact	300
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<210> 507
 <211> 341
 <212> DNA
 <213> Homo sapiens

<400> 507						
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gaacgttccc	tggaaattac	gttgcccccg	tgtgagtggg	ctccatggca	acttggagcc	180
agccaggatg	gggtggggag	cggtggcact	cgtgggaggg	agaggacccc	cgccccacatc	240
ctccttcccc	aggacctgag	ctcccagcat	ctgcagacga	cccccgcagc	ctttccctcg	300
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<210> 508
 <211> 311
 <212> DNA
 <213> Homo sapiens

<400> 508
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 ggaacgttcc ctggaaatta cgttgccccg gtgtgagtgg tctccatggc aacttggagc 180
 cagccaggat ggggtgggga gcggtggcac tctggtggag gagaggacc cgcaccacat 240
 cctccttccc caggacctga gctcccagca tctgcagacg acccccgcag cctttccctc 300
 ggaccctcga a 311

<210> 509
 <211> 455
 <212> DNA
 <213> Homo sapiens

<400> 509
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 ggtgggaatc agtccagggg gcttcgaggg ggggtccgagg gaaaggctgc gggggtcgtc 180
 tgcagatgct gggagctcag gtcctgggga aggaggatgt gggcgggggt cctctccctc 240
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 accacaaac cagccatcgt cactgtctg catgacatcc accctgtccc cctcgcgcag 420
 ctccagctcg tcttcgttct ggggcctgta ctggt 455

<210> 510
 <211> 250
 <212> DNA
 <213> Homo sapiens

<400> 510
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 ggtgggaatc agtccagggg gcttcgaggg ggggtccgagg gaaaggctgc gggggtcgtc 180
 tgcagatgct gggagctcag gtcctgggga aggaggatgt gggcgggggt cctctccctc 240
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<210> 511
 <211> 384
 <212> DNA
 <213> Homo sapiens

<400> 511
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 ccacgagtgc caccgtccc acccatcct ggctggctcc aagttgcat ggagaccact 300
 cacaccggg caacgtaatt tccagggaa gttccgaatt tctgggtcct ccgggagaca 360
 ccacaaacc agccatcgtc acac 384

<210> 512
 <211> 400
 <212> DNA
 <213> Homo sapiens

<400> 512
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ggtgggaatc	agtccagggg	gcttcgaggg	gggtccgagg	gaaaggctgc	gggggtcgtc	180
tgcagatgct	gggagctcag	tcctggggaa	ggaggatgtg	ggcgggggtc	ctctccctcc	240
cacagtgcc	cgtccccca	cccatccctg	ggcgtggctc	caagttgcca	gtggaagaac	300
actcaccacc	cggggccaac	cggtaatttc	caaggggaacc	ggttcccga	atttcctggg	360
gtccctccgg	gaaaaaacca	acaaaacaag	ccctacggca			400

<210> 513
 <211> 453
 <212> DNA
 <213> Homo sapiens

<400> 513						
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ggtgggaatc	agtccagggg	gcttcgaggg	gggtccgagg	gaaaggctgc	gggggtcgtc	180
tgcagatgct	gggagctcag	tcctggggaa	ggaggatgtg	ggcgggggtc	ctctccctcc	240
cacgagtgcc	accgctcccc	acccatcct	ggctggctcc	aagttgccat	ggagaccact	300
cacaccgggg	caacgtaatt	tccagggaac	gttccgaatt	tctgggtcct	ccgggagaca	360
cccacaaacc	agccatcgtc	acactgctgc	atgacatcca	ccctgtcccc	ctcgcgcagc	420
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<210> 514
 <211> 597
 <212> DNA
 <213> Homo sapiens

<400> 514						
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tttggggagt	ggggtgggga	ggaaatgaaa	gggctgtggg	aggaatgcct	gtgagtcgtg	120
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ccacgagtgc	caccgtcccc	acccatcctg	gctggctcca	agttgccatg	gagaccactc	300
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 <213> Homo sapiens

<400> 515						
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<400> 516

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<400> 517

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<400> 518

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<400> 519

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 <211> 671
 <212> PRT
 <213> Homo sapiens

<400> 520

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Leu	Gln	Leu	Asp	Trp	Thr	Phe	Glu	Glu	Pro	Pro	Arg	Asp	Pro	Arg	His	165	170		175
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Ser	Ser	Gly	Arg	Ser	Trp	Asp	His	Ser	Glu	Glu	Leu	Pro	Arg	Ser	Thr	195	200		205
Phe	Asn	Tyr	Arg	Pro	Gly	Ala	Phe	Ser	Thr	Val	Leu	Gln	Pro	Ser	Asn	210	215		220
Gln	Val	Leu	Arg	Arg	Arg	Glu	Lys	Val	Asp	Asn	Val	Trp	Thr	Glu	Glu	225	230		240
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Ala	Arg	Leu	Lys	Phe	Asp	Phe	Gln	Ala	Gln	Ser	Pro	Lys	Glu	Leu	Thr	385	390		400
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Ile	Cys	Leu	Ile	Arg	Lys	Val	Asn	Glu	Asn	Trp	Tyr	Glu	Gly	Arg	Ile	485	490		495
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 <212> DNA
 <213> Homo sapiens

<400> 521

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<211> 444
<212> PRT
<213> Homo sapiens
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255

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 Ser Gly Lys Leu Trp Leu Asp Ala Tyr Leu His Lys
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<210> 523
 <211> 1705
 <212> DNA
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 cgtggcccg aagttcgtga tggggcagct aaagggttc tccgcccact ggtggaactt 720
 ccgccacttc cagcaccacg ccaagcccaa catcttccac aaagaccag acgtgacggt 780
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 aatacattca gatgtaaaaa aaaaa 1705

<210> 524
 <211> 445
 <212> PRT
 <213> Homo sapiens

<400> 524
 Met Gly Gly Val Gly Glu Pro Gly Pro Arg Glu Gly Pro Ala Gln Pro
 1 5 10 15
 Gly Ala Pro Leu Pro Thr Phe Cys Trp Glu Gln Ile Arg Ala His Asp
 20 25 30
 Gln Pro Gly Asp Lys Trp Leu Val Ile Glu Arg Arg Val Tyr Asp Ile
 35 40 45
 Ser Arg Trp Ala Gln Arg His Pro Gly Gly Ser Arg Leu Ile Gly His
 50 55 60
 His Gly Ala Glu Asp Ala Thr Asp Ala Phe Arg Ala Phe His Gln Asp
 65 70 75 80

Leu	Asn	Phe	Val	Arg	Lys	Phe	Leu	Gln	Pro	Leu	Leu	Ile	Gly	Glu	Leu
				85					90					95	
Ala	Pro	Glu	Glu	Pro	Ser	Gln	Asp	Gly	Pro	Leu	Asn	Ala	Gln	Leu	Val
			100					105					110		
Glu	Asp	Phe	Arg	Ala	Leu	His	Gln	Ala	Ala	Glu	Asp	Met	Lys	Leu	Phe
		115					120					125			
Asp	Ala	Ser	Pro	Thr	Phe	Phe	Ala	Phe	Leu	Leu	Gly	His	Ile	Leu	Ala
	130					135					140				
Met	Glu	Val	Leu	Ala	Trp	Leu	Leu	Ile	Tyr	Leu	Leu	Gly	Pro	Gly	Trp
145					150					155					160
Val	Pro	Ser	Ala	Leu	Ala	Ala	Phe	Ile	Leu	Ala	Ile	Ser	Gln	Ala	Gln
				165					170					175	
Ser	Trp	Cys	Leu	Gln	His	Asp	Leu	Gly	His	Ala	Ser	Ile	Phe	Lys	Lys
		180						185					190		
Ser	Trp	Trp	Asn	His	Val	Ala	Gln	Lys	Phe	Val	Met	Gly	Gln	Leu	Lys
		195					200					205			
Gly	Phe	Ser	Ala	His	Trp	Trp	Asn	Phe	Arg	His	Phe	Gln	His	His	Ala
	210					215					220				
Lys	Pro	Asn	Ile	Phe	His	Lys	Asp	Pro	Asp	Val	Thr	Val	Ala	Pro	Val
225					230					235					240
Phe	Leu	Leu	Gly	Glu	Ser	Ser	Val	Glu	Tyr	Gly	Lys	Lys	Lys	Arg	Arg
			245						250					255	
Tyr	Leu	Pro	Tyr	Asn	Gln	Gln	His	Leu	Tyr	Phe	Phe	Leu	Ile	Gly	Pro
			260					265					270		
Pro	Leu	Leu	Thr	Leu	Val	Asn	Phe	Glu	Val	Glu	Asn	Leu	Ala	Tyr	Met
	275						280					285			
Leu	Val	Cys	Met	Gln	Trp	Ala	Asp	Leu	Leu	Trp	Ala	Ala	Ser	Phe	Tyr
	290					295					300				
Ala	Arg	Phe	Phe	Leu	Ser	Tyr	Leu	Pro	Phe	Tyr	Gly	Val	Pro	Gly	Val
305					310					315					320
Leu	Leu	Phe	Phe	Val	Ala	Val	Arg	Val	Leu	Glu	Ser	His	Trp	Phe	Val
				325					330					335	
Trp	Ile	Thr	Gln	Met	Asn	His	Ile	Pro	Lys	Glu	Ile	Gly	His	Glu	Lys
			340					345					350		
His	Arg	Asp	Trp	Val	Ser	Ser	Gln	Leu	Ala	Ala	Thr	Cys	Asn	Val	Glu
		355					360					365			
Pro	Ser	Leu	Phe	Thr	Asn	Trp	Phe	Ser	Gly	His	Leu	Asn	Phe	Gln	Ile
	370					375					380				
Glu	His	His	Leu	Phe	Pro	Arg	Met	Pro	Arg	His	Asn	Tyr	Ser	Arg	Val
385					390					395					400
Ala	Pro	Leu	Val	Lys	Ser	Leu	Cys	Ala	Lys	His	Gly	Leu	Ser	Tyr	Glu
				405					410					415	
Val	Lys	Pro	Phe	Leu	Thr	Ala	Leu	Val	Asp	Ile	Val	Arg	Ser	Leu	Lys
			420					425				430			
Lys	Ser	Gly	Asp	Ile	Trp	Leu	Asp	Ala	Tyr	Leu	His	Gln			
		435					440					445			

<210> 525
 <211> 200
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> poly Gly flexible linker

<220>
 <221> MOD_RES
 <222> (6)...(200)
 <223> Gly at positions 6-200 may be present or absent

```

      <400> 525
Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
1      5      10      15
Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
20     25     30
Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
35     40     45
Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
50     55     60
Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
65     70     75     80
Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
85     90     95
Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
100    105    110
Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
115    120    125
Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
130    135    140
Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
145    150    155    160
Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
165    170    175
Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
180    185    190
Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
195    200

```

<210> 526

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> linker (GGS)-2 in plakoglobin-GFP fusion protein
construct

<400> 526

```

Gly Gly Ser Gly Gly Ser
1      5

```